A COMPARISON OF COLLEGE ATHLETES AND NONATHLETES
IN THE AREAS OF CAREER DECISION-MAKING,
SALIENCE, AND VALUES

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

by

Howard Y. Patterson, B.S., M.S.
Denton, Texas
August 1995
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At a small, private NAIA institution, random samples of 53 college student-athletes (56.6% female), and 51 nonathletes (88% female) were compared on dimensions of career decision-making, role salience, and values. This study paralleled Smallman's (1993) analysis of college athletes at an NCAA Division I school, which found significant differences between athletes and nonathletes in readiness to make career decisions. The present study measured career decision-making skills using The Career Development Inventory. In addition, the present study examined the salience of roles (i.e., student, worker, citizen, family member, and leasurite) as measured by The Salience Inventory. The importance of 21 specific values were measured by The Values Scale. Analysis of Variance was performed on each of scale using an experiment-wise alpha level of $p > .05$. Scale-wise Bonferroni corrections set alpha levels at: $p < .003$ for The Values Scale (VS), $p < .03$ for The Salience Inventory (SI), and $p < .007$ for The Career Development Inventory (CDI), for individual tests.
of significance. Results showed statistically significant differences between athletes and nonathletes at an NAIA school on two scales of the VS: Lifestyle and Prestige ($p < .003$). Factorial analysis revealed no statistically significant simple effects (interactions) for gender by athletic status. However, significant differences were found for gender on the CDI, SI, & VS that could erroneously be attributed to between group differences (i.e., athletes versus nonathletes) had gender not been examined. Scales significant for gender effects included: Commitment on the SI ($p < .03$), Cultural Identity on the VS ($p < .003$), and Career Planning and Career Orientation on the CDI ($p < .007$). Results suggested that athletes' desires to satisfy needs for Prestige (i.e., to be admired) and Lifestyle (i.e., to live a comfortable and self-expressive lifestyle) are important counseling and career planning issues for this group. The null hypothesis was rejected since there were no significant findings. Older norms might be dated.
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Introduction

All is not well in college athletics! College student-athletes of the 1990s do not differ greatly from their counterparts of the previous two decades. Some student-athletes attend college with the hope of gaining a meaningful education, some are preparing for a career after college, and some are preparing for life after intercollegiate athletics. However, many student-athletes have goals that revolve around playing professional sports or continuing an athletics-related career after intercollegiate eligibility expires. Many student-athletes have not focused on preparing for a career outside of sports when they first select a college, or when a college selects them. Kirk and Kirk (1993) found that many have never focused on a career outside of sports since early childhood.

Students who choose to compete in intercollegiate athletics face a unique set of challenges and circumstances as they transition from high school to college. Two obvious challenges are: (a) balancing athletic and academic roles, and (b) planning for athletic retirement (Jordon & Denson, 1990).
The term "dumb jock" was a widely used, generalized description of student-athletes throughout the 1970s and 1980s—defined as expecting less academically of athletes than from nonathletes (Kirk & Kirk, 1993). Today, the term still elicits the image of a student who attends college only to participate in sports, possibly because sport is the only area in which they have experienced success and received praise. As in the 1970s and 1980s, athletics may be the only thing student-athletes participate in that brings self-worth and self-identity. Underwood (1980) used the phrase "majoring in eligibility" as a tactful descriptor for the student who is unconcerned with academic matters beyond that needed to retain eligibility. Although maintaining eligibility is the key objective for many student-athletes, the real problem lies in years of using sports as the sole provider of self-identity for the student-athlete.

The literature has described explicitly the developmental deficiencies, transitional problems, and academic deficiencies of intercollegiate student-athletes who have used sports as their primary, if not sole, source of self-identity (Jordon & Denson, 1990; Lanning, 1982; Pearson & Petitpas, 1990; Petitpas & Champagne, 1988; Wooten, 1993). Usually these problems resulted from overdependence on sports accomplishments to determine who the person is and what in life is important.
The majority of recruited athletes in major sports programs aspire to play professional sports, yet fewer than two percent will (Underwood, 1980). A study by Remer (1978) found that the likelihood of a sports career is small—less than three and one-half percent of collegiate athletes continue in professional sports and have a career expectancy of fewer than five years. In spite of these odds, athletes are still reinforced for their sports-directed desire and ability by parents, coaches, teachers, and peers. As a result, many do not consider developing a career outside of sports as the nonathlete does (Lanning, 1982). Hence, millions of American youths have lost their chance for a meaningful education because they have bought into the dream of beating the 10,000 to one odds of becoming a professional athlete (Kirk & Kirk, 1993).

Smallman (1993) found that student-athletes at NCAA Division I institutions were significantly less able than nonathletes in their readiness to make career decisions. This inability to make career decisions seems to be only one of several potential developmental deficiencies many student-athletes experience. Hinkle (1977) found that major-sport (e.g., football, basketball) student-athletes needed guidance and assistance in career and life planning while attending college. Because few collegiate athletes go on to play professional sports, large numbers of student-athletes have made no career plan and are not ready to make career decisions. Administrators and professionals in
coaching, counseling, and career development must be willing to take on a whole new focus in the 1990s—that of helping student-athletes cope with these developmental delays in career planning, decision-making, and world-of-work knowledge development.

Traditionally, athletes have received preferential treatment in college. Today, preferential treatment continues in different and sometimes less obvious ways. There are special athletic dorms, athletic training tables or food services, athletic fitness facilities, special tutors, preferential treatment at registration, etc. By contrast, the nonathlete does not have access to these perks. Special treatment for student-athletes is justified as necessary to keep athletes eligible for intercollegiate competition. Unfortunately, student-athletes deserve and need preferential treatment, but in less obvious areas.

Statement of the Problem

This study was concerned with potential developmental deficiencies inherent in college-level student-athletes in career decision-making, role salience, and values.

Purpose of the Study

The primary purpose of this study was to determine if student-athletes at a small, private Catholic-affiliated college differ from nonathletes at the same institution in the areas of career decision-making, role salience, and values. Smallman (1993) found that student-athletes at NCAA
Division I schools were significantly different from nonathletes in their readiness to make career decisions. The present study attempted to determine whether the same developmental deficiencies and differences exist between student-athletes and nonathletes at a small, private Catholic-affiliated college where the emphasis on athletic achievement is not stressed to the same degree as it is at an NCAA Division I institution.

Research Questions

This study proposed the following questions:

1. Do student-athletes and nonathletes score differently on: (a) attitudinal components (career planning, career exploration, and combined attitudinal scale), (b) knowledge components (decision-making skills, knowledge of the world-of-work and combined knowledge scale), and (c) career maturity, as measured by the Career Development Inventory (CDI)?

2. Are the attitudes and knowledge associated with progress and satisfaction in occupational careers the same for student athletes and nonathletes, as measured by the CDI?

3. Are there significant gender and athletic status interactions (i.e., simple effects) on these dimensions, as measured by the CDI?

4. Do student-athletes and nonathletes differ on
participation commitment and values expectation scores, as measured by the Salience Inventory (SI)?

5. Are there significant gender and athletic status interactions (i.e., simple effects) for these scores, as measured by the SI?

6. Do student-athletes and nonathletes differ on values, as measured by the Values Scale (VS)?

7. Do male and female students differ on values, as measured by the VS?

From the preceding research questions, the following three hypotheses were proposed.

Hypotheses

1. There will be no significant differences between the athletes and nonathletes attributed to CAREER PLANNING, CAREER EXPLORATION, and COMBINED ATTITUINAL SCALE, CAREER DECISION-MAKING SKILLS, KNOWLEDGE OF WORLD-OF-WORK INFORMATION, COMBINED KNOWLEDGE SCALE AND CAREER MATURITY, PARTICIPATION, COMMITMENT, VALUES EXPECTATIONS, and VALUES.

2. There will be no significant differences that can be attributed to the interaction of gender and athletic status regarding CAREER PLANNING, CAREER EXPLORATION, and COMBINED ATTITUINAL SCALE, or CAREER DECISION-MAKING SKILLS, KNOWLEDGE OF WORLD-OF-WORK INFORMATION, COMBINED KNOWLEDGE SCALE AND CAREER MATURITY,
PARTICIPATION, COMMITMENT, VALUES, and VALUES EXPECTATIONS.

3. There will be no significant differences between male and female students attributed to CAREER PLANNING, CAREER EXPLORATION, and COMBINED ATTITUDINAL SCALE, or CAREER DECISION-MAKING SKILLS, KNOWLEDGE OF WORLD-OF-WORK INFORMATION, COMBINED KNOWLEDGE SCALE AND CAREER MATURITY, PARTICIPATION, COMMITMENT, VALUES EXPECTATIONS, and VALUES.

Significance of the Study

This study examines developmental differences between athletes and nonathletes at a small, private institution, on three dimensions. The assumption is that athletes at small private colleges have the same developmental deficiencies as major college student-athletes. Moreover, it is assumed that at small, private colleges, athlete developmental needs are not recognized or addressed by either the college curriculum or through supplemental programming.

The first area examined is CAREER DEVELOPMENT, which includes: (a) OCCUPATIONAL AWARENESS, (b) PLANFULNESS, (c) desire to explore the WORLD-OF-WORK and recognition of changes in the tasks of vocational development that one faces with increased age and social responsibilities, and (d) KNOWLEDGE OF THE WORLD-OF-WORK and of appropriate occupations (Super, Osborne, Walsh, Brown, & Niles, 1992).
The second area examined is role SALIENCE, which is an antecedent to career decision-making. SALIENCE refers to the relative importance of how one sees him/herself in five of life's roles: (a) student, (b) worker, (c) citizen, (d) homemaker, and (e) leisurite (i.e., free time activities). The level of PARTICIPATION and COMMITMENT to each role, as well as the associated value expectations, is examined. The examination of salience is helpful in evaluating an individual's orientation to life roles, readiness for career decisions, and exposure to work and occupations (Super & Nevill, 1985a).

The third area examined is values. The VALUES SCALE (Super & Nevill, 1985b) examines a number of values: (a) ABILITY UTILIZATION, (b) ACHIEVEMENT, (c) ADVANCEMENT, (d) AESTHETICS, (e) ALTRUISM, (f) AUTHORITY, (g) AUTONOMY, (h) CREATIVITY, (i) ECONOMIC REWARDS, (j) ECONOMICS, (k) SECURITY, (l) LIFE STYLE, (m) PERSONAL DEVELOPMENT, (n) PHYSICAL ACTIVITY, (o) PHYSICAL PROWESS, (p) PRESTIGE, (q) RISK, (r) SOCIAL INTERACTIONS, (s) VARIETY, (t) WORKING CONDITIONS, and (u) CULTURAL IDENTITY.

There are important social and psychological implications for the examination of developmental deficiencies in college athletes. If small, private college-athletes (i.e., at NAIA schools) have problems similar to those of larger college-athletes (i.e., at NCAA Division I schools), then small colleges also must be charged with developing supplemental educational programs to
help student-athletes surmount social, psychological, and educational deficiencies. With over twenty million youth participating in sports programs in the United States today, there is a dramatic need for specialized attention in academic, athletic, and emotional areas.

Summary

Chapter I presented an overview of why student athletes are often stereotype as "dumb jocks". In most cases, the life of the student athlete has revolved around sports and the success experienced in sports has led the student athletes to inadequately focus on a career or life after athletics. The literature described the developmental deficiencies, transitional problems, and academic deficiencies of intercollegiate student athletes who have used sports as their primary, if not sole, source of self-identity.

This study is concerned with attempting to determine the potential developmental deficiencies, as compared to the nonathletes, inherent in college-level student athletes in the areas of career decision making, role salience, and values. It is the purpose of this study to determine if student-athletes at a small, private Catholic-affiliated institution differ from nonathletes at the same institution in career decision-making, role salience, and values.

Three hypotheses were presented in an attempt to answer questions concerning differences between student-athletes,
nonathletes, as well as gender and interaction differences. Research at NCAA Division I institutions has determined that there are differences between athletes and nonathletes, especially in the areas of career decision-making.

Chapter II will present a review of the literature pertinent to the differences between athletes and nonathletes at the intercollegiate level. Chapter II will also validate the need for this study to add to the literature while focusing on the differences between athletes and nonathletes at smaller institutions which do not place as great an emphasis on winning as do NCAA Division I institutions.
CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Colleges sponsoring intercollegiate athletic programs first came together in 1905 when Theodore Roosevelt summoned college athletic leaders to a White House conference to encourage reforms in football playing rules (NCAA, 1994). In addition to changes in football rules, a further result of that meeting was the formation of the Intercollegiate Athletic Association of the United States in 1906, only to be renamed in 1910 The National Collegiate Athletic Association or NCAA as we know it today (NCAA, 1994).

There were 62 original member institutions in the NCAA in 1910 while today there are nearly 1100 member institutions in three classifications: Division I, Division II, and Division III. Generally, the differences in classification include: (a) sports sponsorship minimum criteria, (b) football and basketball scheduling requirements, (c) academic and eligibility standards, and (d) financial aid limitations (NCAA, 1994).

As more and more institutions initiated intercollegiate athletic programs, the need arose for an organization similar in nature and purpose to the NCAA, but for smaller
institutions which were not predominately football centered. Hence, in 1940 the National Association of Intercollegiate Athletics, or NAIA, was formed (NAIA, 1994). The NAIA has slightly under 250 member institutions competing in two divisions; Division I and Division II. Division I institutions offer athletically-related financial aid assistance or athletic scholarships while Division II does not.

Today, intercollegiate athletics at major NCAA Division I institutions is big business. Annual operating budgets for the combined men’s and women’s programs can exceed $20 million in each of the top twenty programs, a figure that surpasses the total operating budgets of most small colleges in the United States (Chronicle of Higher Education, 1994).

Throughout their history, the NCAA and NAIA have made many legislative changes to address the needs of the student-athlete. As with the historic 1905 White House Conference when President Roosevelt provided the opportunity to take a closer look at college sports and initiate far reaching changes, the Knight Commission, formed in the late 1980s, served a similar purpose. The Knight Commission was composed of twenty-two leaders from higher education, business, the Congress, sports, and boards of trustees. The Commission’s historic charge was to correct abuses in intercollegiate athletics and to serve as a positive influence in retaining intercollegiate sports programs ("Knight Commission Report," March 1990).
As a result of the Knight Commission and other lesser commissions and studies during the past fifteen years, a new concern has surfaced for protecting the overall welfare of student athletes (Kirk & Kirk, 1993). The need for reform in intercollegiate athletics exists. However, there is a poignant need for reform in student-athlete education. Yet, this need has not been adequately addressed.

Until the year 1990 a student-athlete was allowed to participate in intercollegiate athletics for four years without declaring a major. Student-athletes could take a variety of courses having little or nothing to do with movement toward a college degree or career outside of competitive sports. The sole objective was simply remaining eligible to play.

The NCAA and the NAIA eliminated major educational loopholes in 1990 and 1991 respectively, when rule changes forced student-athletes to make "normal progress" toward a degree. Normal progress was defined as completing twenty-four or more new credit hours toward an accredited degree during the preceding academic year or two semesters. But implementing more stringent rules to ensure progress toward a degree did not address why students participate in intercollegiate athletics in the first place. More importantly, it does not help student-athletes obtain a meaningful realization of what is needed to cope in society and in a career once athletics are over.
In today’s college environment, student-athletes remain eligible for up to two years while enrolled in nondegree courses. However, certification of eligibility for a third year is virtually impossible without declaring a major and fulfilling degree requirements toward that major. Nondegree fulfilling electives no longer count toward maintaining eligibility. Recent NCAA and NAIA legislation that, in essence, prohibits students from "majoring in athletics" is admirable. But the present rules are band-aids for the real problems facing student-athletes in today’s society.

The stated purpose of the NCAA is to initiate, stimulate, and improve intercollegiate athletics programs for student-athletes and to promote and develop educational excellence and athletic participation as a recreational sport (NCAA Manual, 1994, p.1). The stated purpose of the NAIA is to promote the education and development of students through intercollegiate participation (NAIA, 1994, p.1). These philosophical statements by the largest governing bodies of intercollegiate athletics in the United States seem to be congruent. Both purport to use intercollegiate athletics as a vehicle for student-athlete improvement and development. But neither body adequately addresses student-athlete educational and developmental needs outside of the playing arena.

The NCAA and NAIA both profess concern for student-athletes as individuals and as students. Both organizations have incorporated language in their respective
manuals that stresses the need for supplemental education, outside of the classroom, to assist student-athletes in social, psychological, and educational matters not covered by the normal college curriculum. In fact, the NCAA focused the agenda for the 1995 Annual Convention around the student-athlete (NCAA, 1995). Nonetheless, the problem of developmental deficiencies of college student-athletes has not been adequately addressed.

Theoretical and Empirical Studies

There are theoretical as well as empirical studies to support the contention that this period in the lives of student-athletes is more problematic than either student-athletes or institutions of higher education care to admit (Parham, 1993). To date, only the NCAA has made progress in developing materials to assist with the planning of educational forums to help student-athletes adjust to college life and prepare for life after college—especially, life after intercollegiate athletics. The NCAA is in the second of a three year pilot program called Challenging Athletes' Minds for Personal Success, or CHAMPS. The CHAMPS program is designed to involve student-athletes in a comprehensive and systematic life skills program to address individual needs and developmental deficiencies. CHAMPS attempts to provide life-enriching experiences and educational opportunities for student-athletes. The primary focus is on the individual as a "total person,"
academically, athletically, personally and especially in the changing needs and skills necessary during college and after graduation (NCAA, 1994).

The CHAMPS program is a major step toward helping student-athletes grow and overcome developmental deficiencies in certain areas. However, the program has been put together and field tested without adequate research to document why certain life-enriching experiences and educational opportunities for student-athletes should be conducted. If there are developmental deficiencies, the NCAA has not documented them.

College sports are driven by an insatiable appetite for winning and, according to Sanoff & Schrol (1990), college student-athletes are not getting the moral guidance nor the education they deserve. While the institutions win on the athletic field, student-athletes continue to lose. Student-athletes do not receive adequate help to overcome years of developmental deficiencies attributable to participation in sport.

Morgan (1980) found that athletes, in general, possessed a "tough minded" quality that prevent or inhibit them from dealing with problems. Conscious or unconscious denial that problems exist may become a defense mechanism that further inhibits the developmental process for student-athletes.

Fortunately, the sports of little league baseball and youth soccer provide the perfect arena for assimilating
certain developmental goals. A sense of competence and industry are derived from being selected as a member of the team--while others are being rejected--and from developing into a dependable player or starter. The importance of successful performance is instilled by the importance placed upon it by adult coaches and fans. Similarly, these sports instill the social skills of cooperation and fair play.

Heyman (1987) determined that reinforcement of an athlete's identity was specific and time-based. But during the period that these students were forming an athlete's identity, other necessary components of a mature, functional and broad-based identity were not developed.

During adolescence the physical, social, and emotional changes that occur force children to question themselves and their identity (Shaffer, 1985). If, up until the beginning of college, the beliefs and self-identity of the student-athlete have come from successful associations with sports, a personal identity around athletics has been forged (Kirk & Kirk, 1990). Erikson's (1968) theory proposes that adolescents who do not develop a strong sense of self enter adulthood with considerable role confusion or identity diffusion.

Erikson's psychosocial theory of development holds that the healthy personality is the consequence of successfully negotiating predictable issues at certain stages of life (Shaffer, 1985). Erikson's eight stages depict the entire life span, but for the purposes of this research, Stage 4:
Industry versus Inferiority (i.e., ages 6 to 12) and Stage 5: Identity versus Identity Diffusion and role confusion (i.e., ages 12 to 18) are pertinent. According to Erikson, peer comparison allows youngsters to determine who they are and what they are capable of doing. Ironically, one obtains a sense of self definition through interaction with others.

Achieving the major goals of Stage 4, which include acquiring both academic and social skills, allows a child to develop a sense of industry and self-esteem (Shaffer, 1985). Thus, it is likely that successful major college intercollegiate athletes have the potential for developmental deficiencies due to their athletic prowess.

Sparent (1988) noted that athletes, more than any other student group, were forced to be most intimate with the same individuals they competed with in high-pressure situations that were closely linked to their self-esteem. This unique competitive environment may contribute to the developmental deficiencies previously noted.

Lanning (1980) wrote,

Of the greatest impact and with the most far-reaching implications is the special need athletes have in the area of self-image development (p. 21).

Most athletes have had life long rewards from their athletic abilities and successes. Thus, athletes develop a sense of worth based on who they are as athletes and not on who they are as nonathletes.

Nonathletes base their sense of worth and self-image on nonathletic talents. Academic success, special aptitudes
toward music, science, math, and other talents allow nonathletes to be more career focused and mindful as they enter college and begin preparation for life after college.

Muczko (1993) examined senior Division I football players and found a high degree of indecisiveness in the areas of career decision-making and in the expected graduation rate. Parham (1993) reported that graduation rates for student-athletes at Division I institutions were low when compared to nonathletes. Only 39 percent of basketball players entering the University of Texas at Austin between 1975 and 1981 obtained degrees whereas 54 percent of the student body as a whole obtained degrees (Sanoff, 1986). At North Carolina State University only two of 80 entering football players during the classes of 1976, 1977, and 1978 earned degrees and, during that same period, none of the basketball players earned degrees (Cramer, 1986). Academic abuses and problems were most prevalent in the two high-profile, revenue-producing sports of football and basketball, and often these problems involved black or minority student athletes (Funk, 1991).

Funk (1991) found that athletes had a lower grade-point average than nonathletes, although it was noted that this may have been due to the large number of football and basketball athletes. An NCAA study (NCAA, 1988) conducted by the America Institute for Research (AIR), concurred with Funk's findings. Cumulative grade point averages for football and basketball players were lower than the average
GPAs of players in other intercollegiate sports. Another study conducted at an NCAA Division I institution found that grade point averages for female athletes were higher than for male athletes, although the academic performance of athletes as a group was not significantly lower than the academic performance of nonathletes (Mayo, 1986).

Pearson and Petitpas (1990) determined that the opportunity to engage in developmentally appropriate activities was suppressed by an athletic system that segregates athletes from nonathletes. Contrary to appearances, athletes do not have the advantage over nonathletes in competence, industry, and role identity. There is danger in the projection or use of a self-image that may be, and in most cases it is, incorrect in the future. Assuming one's future lies in professional sports at an early age may do more harm than good, especially as it relates to arresting development. Hurley's (1993) study concluded that student-athletes who received full grant-in-aid assistance experienced significantly greater role conflict and had lower academic performance than those who did not receive similar financial assistance at an NCAA Division I institution.

Student-athletes who have not explored their internal needs and values often concede to environmental demands and adopt a socially acceptable role identity. Erikson (1968) calls this premature foreclosure on an identity. Student-athletes who take this route to identity formation avoid an
identity crisis and gain a sense of safety and security, but
do so at the cost of foregone personal freedoms (Petitpas,
1978).

Total dependence on athletics to determine identity,
self-worth, and industry poses problems for student-
athletes. Pearson and Petitpas (1990) outlined
developmental factors contributing to restricted development
in athletes. Beginning in early adolescence, they
experience a continuous narrowing of focus upon athletic
participation and a subsequent sport career.

At most major universities across the country today’s
student-athletes are members of a seemingly privileged
special population. Bloland (1987) wrote that athletes face
the same set of academic and social demands that nonathletes
face. Heyman (1987) went a step further by noting that on
the surface, the demands appear similar, but athletes must
attain certain specific academic and sports requirements
that nonathletes do not. Intercollegiate athletics is a
highly competitive environment in which students must
constantly strive to remain a starter or simply to remain on
the team.

The uninformed might assume that the identification
associated with being an athlete would carry with it only
positive relationships. However, Heyman (1987) believes,
like Erikson, that many of the problems athletes suffer from
are associated with identity and identity-related issues.
Participation in intercollegiate athletics creates time
demands such that interaction with nonathletes is severely reduced. At many institutions both registration and orientation are conducted separately for student-athletes. Student-athletes tend to be assigned to rooms with other athletes, which are in special athletics dormitories and they eat in a special athletic cafeteria. Separate study halls and tutors further isolate student-athletes from nonathletes, thus increasing the possibility of uncomfortableness when the athlete approaches typical university situations (Whittemore, 1985).

The majority of research suggests that student-athletes, especially male student-athletes, at NCAA Division I institutions have developmental deficiencies in the areas of career decision-making, role salience, and values clarification when compared to nonathletes. These problems are the apparent result of successful and self-gratifying association with athletics from the ages of 6 to 18. The athletes' self-image and self-worth have been determined, to a large degree, by their success in sports. Thus, making the transition to college from high school is difficult, at best, for those who have not accepted the need to prepare for a career after athletics.

The current trend of fiscal belt tightening or restraint in higher education, especially at small, private institutions, does not support the gratuitous implementation of special educational and enrichment opportunities for college student-athletes in the near future. However, there
is evidence in the literature to suggest that college administrators need to become cognizant of the special needs of athletes. This and subsequent research will identify the steps that schools must take to assist this special student population.

The author anticipates that the findings of this study will have an impact on student-athlete educational programming at small private colleges. Coaches, counselors and administrators will be able to identify developmental needs and implement programs that address the pertinent issues identified by this study.

Summary

Chapter II presented an overview of Theoretical and empirical research which overwhelmingly supports the hypothesis that college-level student athletes at NCAA Division I institutions are significantly different from nonathletes, especially in the area surrounding career decision making processes. Several research studies reported that the majority of male college football and basketball players have not prepared for a career outside of sports after college athletics, but are, instead, expecting to continue a sports-related career once college eligibility has expired. Fewer than two percent of college football and basketball players make it to the professional ranks, and then only for an average career length of five years. The fact that such a high percentage of student athletes are not
prepared for a career after college sports presents a major ethical concern and educational problem for institutions of higher education.
CHAPTER III

METHODS AND PROCEDURES

Introduction

The procedures described in this chapter were designed to select and describe the subjects in the sample, describe the instruments and procedures, state the hypotheses, and describe data analysis.

Subjects

Fifty-three full-time undergraduate student-athletes, enrolled for the 1995 Spring semester at Incarnate Word College in San Antonio, Texas, were selected at random from a pool of approximately 165 student-athletes. Fifty-one undergraduate nonathletes, enrolled full-time in the 1995 Spring semester at Incarnate Word College, were selected at random from a population of approximately 2015. Subjects were contacted by mail after selection. The contact explained the purpose of the study as well as requested their cooperation.

Demographics

The sample consisted of 104 subjects, 75 (72.1) percent) were female and 29 (27.9 percent) were male. Subjects were evenly distributed across the four classes of
freshman, sophomore, junior, and senior. Table 1 shows the
distribution by gender and classification for the sample.

Table 1 - Distribution of Subjects by Gender and College
Classification

<table>
<thead>
<tr>
<th></th>
<th>Athletes</th>
<th>Non Athletes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>23 (43.4%)</td>
<td>6 (11.8%)</td>
<td>29 (27.9%)</td>
</tr>
<tr>
<td>Female</td>
<td>30 (56.6%)</td>
<td>45 (88.2%)</td>
<td>75 (72.1%)</td>
</tr>
<tr>
<td>Freshman</td>
<td>19 (35.8%)</td>
<td>19 (37.3%)</td>
<td>38 (36.5%)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>11 (20.8%)</td>
<td>7 (13.7%)</td>
<td>18 (17.3%)</td>
</tr>
<tr>
<td>Junior</td>
<td>13 (24.5%)</td>
<td>13 (25.5%)</td>
<td>26 (25.0%)</td>
</tr>
<tr>
<td>Senior</td>
<td>10 (18.9%)</td>
<td>12 (23.5%)</td>
<td>22 (21.2%)</td>
</tr>
</tbody>
</table>

The average age of the sample was 20.7 years with a
standard deviation of 3.2 years. Subgroups of athletes and
non-athletes were equivalent in age. All subjects had
completed a minimum of a high school education. Subjects in
both groups came from a variety of majors. Nearly all of
the subjects were unmarried.

Table 2 details the occupation of subjects' family
members by one of five classifications. Those considered
include professional, clerical, skilled, semi-skilled, and
non response. Since the possibility exists that subjects
might be married, the occupational classification of their
parents as well as their spouse was requested.
Table 2 - Distribution of the Occupations of Subjects' Parents/Spouse

<table>
<thead>
<tr>
<th></th>
<th>Father</th>
<th>Mother</th>
<th>Spouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>63 (60.6%)</td>
<td>30 (28.8%)</td>
<td>5 (04.8%)</td>
</tr>
<tr>
<td>Clerical</td>
<td>3 (02.9%)</td>
<td>30 (28.8%)</td>
<td>1 (01.0%)</td>
</tr>
<tr>
<td>Skilled</td>
<td>18 (17.3%)</td>
<td>23 (22.1%)</td>
<td>1 (01.0%)</td>
</tr>
<tr>
<td>Semi-unskilled</td>
<td>5 (04.8%)</td>
<td>11 (10.6%)</td>
<td>0 (00.0%)</td>
</tr>
<tr>
<td>No response</td>
<td>15 (14.4%)</td>
<td>10 (09.6%)</td>
<td>97 (93.3%)</td>
</tr>
</tbody>
</table>

The occupations of the families of the subjects were distributed across the employment spectrum with the largest group representing professionals occupations. The smallest intact groups represented spouses involved in clerical or skilled position with one in each category.

Instruments

A Demographic Form and three instruments were used for the collection of data in this study. The SALIENCE INVENTORY, the VALUES SCALE, and the CAREER DEVELOPMENT INVENTORY are the three instruments that came from the international Work Importance Study that sought to develop useful career assessment inventories for eventual use with high school and college adolescents and adults. Parallel forms of the inventories were developed in seven languages with investigative teams from a dozen European and Asian countries including the United States, Australia, Canada, Czechoslovakia, India, Israel, Italy, Poland, Portugal, and Yugoslavia. The American team was led by Donald Super.
American forms of these inventories are copyrighted by Consulting Psychologists Press.

THE SALIENCE INVENTORY. THE SALIENCE INVENTORY (SI) is a self-report instrument developed by Super and Nevill (1985). This inventory of activities, attitudes and values assesses the meaning and importance of the various kinds of activities one engages in regularly. It examines the behavioral aspects of activities and assigns a PARTICIPATION score. There is also a COMMITMENT component that is assessed by asking about attitudes toward particular roles as a student, worker, active member of the community, in the home with family, and in one's leisure or free time. In Super's terminology, the roles may be defined as: student, worker, homemaker, citizen and leisurite. THE SALIENCE INVENTORY also measures the associated VALUES/EXPECTATIONS. Like the COMMITMENT scale, VALUES/EXPECTATIONS examine the affective aspects of roles. It rates the attitudes or degree to which major life satisfactions (or values) are expected to be found in a particular role. THE SALIENCE INVENTORY is helpful in evaluating an individual's orientation to life's roles, readiness for career decisions and exposure to work and occupations (Super & Nevill, 1985a).

Two measures of reliability were computed for the SALIENCE INVENTORY; internal consistency and stability (test-retest). Internal consistency alpha were above .80
and test-retest reliabilities were approximately .70 (Nevill, & Super, 1986). The SALIENCE INVENTORY was developed through an evaluation of the relevant content domains and thus the content validity was an intrinsic part of its development.

THE VALUES SCALE. The second instrument was the VALUES SCALE, which sought to determine how important the various values or satisfactions most people seek in life are. Because the VALUES SCALE was developed by a multinational team, it is particularly appropriate for crosscultural and gender studies. Previous research done in the United States has shown that there are significant differences along gender lines. For example, women placed greater importance on AESTHETICS, PERSONAL DEVELOPMENT, WORKING CONDITIONS, and ALTRUISM, while men tended to value RISK and PHYSICAL PROWESS more than women (Yates, 1985). The Values Scale contains a total of twenty-one scales: ABILITY UTILIZATION, ACHIEVEMENT, ADVANCEMENT, AESTHETICS, ALTRUISM, AUTHORITY, AUTONOMY, CREATIVITY, ECONOMIC REWARDS, ECONOMICS, SECURITY, LIFE STYLE, PERSONAL DEVELOPMENT, PHYSICAL ACTIVITY, PHYSICAL PROWESS, PRESTIGE, RISK, SOCIAL INTERACTIONS, VARIETY, WORKING CONDITIONS, and CULTURAL IDENTITY (Super & Nevill, 1985b). People differ in what is important to them, but to some extent most people want the same thing. The VALUES SCALE seeks to clarify the degrees of importance.
Two measures of reliability were computed for the VALUES SCALE. Internal consistency alpha coefficients of five items ranged between .64 and .84. Test-retest correlations ranged from .63 to .80. Validity was established utilizing proper inventory development. Teams of at least three specialists from different countries wrote items. Item scale correlations and factor analytic procedures designed to insure internal consistency and appropriate scale independence were utilized (Nevill & Super, 1986).

The following terms, specifically associated with the VALUES SCALE, are presented for clarification purposes:

ABILITY UTILIZATION. Use all my skills and knowledge

ACHIEVEMENT. Have results which show that I have done well

ALTRUISM. Help people with problems

LIFE STYLE. Live according to my own ideas

PRESTIGE. Be admired for my knowledge and skills

CULTURAL IDENTITY. Live where people of my religion and race are accepted

PHYSICAL PROWESS. Work hard physically

ECONOMIC SECURITY. Be where employment is regular and secure

The CAREER DEVELOPMENT INVENTORY. The last instrument used was the CAREER DEVELOPMENT INVENTORY (CDI). The CDI assessed five areas; CAREER PLANNING, CAREER EXPLORATION, DECISION MAKING, WORLD-OF-WORK INFORMATION, and KNOWLEDGE OF PREFERRED OCCUPATIONAL GROUP (Super, et al., 1992). The CDI
asked about work, a future career, and future plans. Answers to questions can indicate what kind of help may be useful in planning and preparing for a job after graduation, for vocational and technical school training, or for going to college before pursuing a career.

The reliability of the college form CDI was established by at least two independent studies. Savickas (1975) obtained coefficient alphas of .91 and .83 for the two affective scales, and a .61 for the cognitive scale. Tilden (1978) found test-retest coefficients ranging from .73 to .97 (Thompson & Lindeman, 1984).

The following terms, uniquely associated with the CAREER DEVELOPMENT INVENTORY, are defined as follows:

CAREER DEVELOPMENT-ATTITUDES. combines career planning and career exploration.

CAREER DEVELOPMENT-KNOWLEDGE AND SKILLS SCALE. Combines CAREER DECISION-MAKING and WORLD-OF-WORK INFORMATION, assessing the highly intercorrelated knowledge of how to make career decision with knowledge of the world of work.

CAREER DEVELOPMENT INVENTORY - measures several affective and cognitive aspects of the earlier stages of career development, primarily exploration and establishment.

CAREER EXPLORATION SCALE - reports the student's rating of information sources of career information and the usefulness of the information.

CAREER ORIENTATION TOTAL SCALE. Scale - combines CAREER PLANNING CAREER EXPLORATION, CAREER DECISION-MAKING, and WORLD-OF-WORK INFORMATION, approaching a measure of career or vocational maturity.

CAREER PLANNING SCALE - reports the career planning in which he or she has engaged and the degree of engagement.
DECISION-MAKING SCALE - measures the ability to apply knowledge and insight to career planning and decision making.

KNOWLEDGE OF PREFERRED OCCUPATIONAL GROUP SCALE - identifies the occupational group which interest the student most.

WORLD-OF-WORK INFORMATION SCALE - assesses knowledge of the career-development tasks in the early stages.

Procedures

Incarnate Word College does not schedule noon hour classes on Wednesdays. During one noon hour both groups completed the CAREER DEVELOPMENT INVENTORY and during the second noon hour they completed the VALUES SCALE and SALIENCE INVENTORY. The administration took between 40-60 minutes each session. Due to the inability of some subjects to attend the group administration session, some took one or all three survey instruments at times separate from the groups.

Data Analyses

All three hypotheses were examined utilizing data collected from the eight item CAREER DEVELOPMENT INVENTORY (CDI), the three item SALIENCE INVENTORY (SI), and the twenty-one item VALUES SCALE (VS).

Summary

Chapter III presented the methods and procedures involved in this research study. The demographics of the subjects as well as the instruments to be used were introduced and explained. An analysis of variance will be
used to compare the differences between athletes and nonathletes as well as the differences between male and female students.
CHAPTER IV

RESULTS

Introduction

This study was concerned with potential developmental deficiencies inherent in college-level student-athletes in the areas of career decision-making, role salience, and values. The primary purpose was to determine if student-athletes at a small, private, Catholic-affiliated college differ from nonathletes at the same institution in the areas of career decision-making, role salience, and values. Three instruments were used to make these determinations: the CAREER DEVELOPMENT INVENTORY, the VALUES SCALE, and the SALIENCE INVENTORY respectively.

Group Differences

Factorial ANOVAs examined the main effects of the independent variables of athletic status (i.e., athlete versus nonathlete) and gender on the dependent variables, as measured by the CAREER DEVELOPMENT INVENTORY, the SALIENCE INVENTORY, and the VALUES SCALE. Factorial analysis also allowed the examination of interaction of the independent variables (i.e., gender x athletic status) to determine whether there were simple effects. Thus, for example, it was possible to determine whether there were differences in
was possible to determine whether there were differences in how female athletes versus male athletes answered the items on the various dependent measures.

Hypotheses

Hypothesis 1 stated that there were no significant differences between the athletes and nonathletes attributed to CAREER PLANNING, CAREER EXPLORATION, and COMBINED ATTITUDINAL SCALE, CAREER DECISION-MAKING SKILLS, KNOWLEDGE OF WORLD-OF-WORK INFORMATION, COMBINED KNOWLEDGE SCALE AND CAREER MATURITY, PARTICIPATION, COMMITMENT, VALUES EXPECTATIONS, and VALUES. A statistical summary of the differences between the mean scores of athletes and nonathletes on the variables of CAREER PLANNING, CAREER EXPLORATION, and COMBINED ATTITUDINAL SCALE, CAREER DECISION-MAKING SKILLS, KNOWLEDGE OF WORLD-OF-WORK INFORMATION, COMBINED KNOWLEDGE SCALE, AND CAREER MATURITY, as measured the CAREER DEVELOPMENT INVENTORY, is provided in Table 3.
Table 3 - Differences Between the Mean Scores of Athletes and Nonathletes as Measured by the CDI. (α = .007).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean Ath</th>
<th>Mean Nonath</th>
<th>F_value</th>
<th>F_prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Planning</td>
<td>109.9</td>
<td>114.2</td>
<td>5.233</td>
<td>0.024</td>
</tr>
<tr>
<td>Career Exploration</td>
<td>110.7</td>
<td>110.5</td>
<td>0.011</td>
<td>0.918</td>
</tr>
<tr>
<td>Career</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision-Making</td>
<td>87.3</td>
<td>89.9</td>
<td>1.313</td>
<td>0.255</td>
</tr>
<tr>
<td>Knowledge of World-of-Work</td>
<td>84.2</td>
<td>90.5</td>
<td>5.665</td>
<td>0.019</td>
</tr>
<tr>
<td>Career Orientation</td>
<td>96.5</td>
<td>103.1</td>
<td>6.299</td>
<td>0.014</td>
</tr>
<tr>
<td>Total</td>
<td>87.4</td>
<td>89.3</td>
<td>0.549</td>
<td>0.461</td>
</tr>
<tr>
<td>Knowledge of Preferred Occupation</td>
<td>112.0</td>
<td>114.2</td>
<td>1.287</td>
<td>0.259</td>
</tr>
<tr>
<td>Career Development Attitudes</td>
<td>83.2</td>
<td>89.2</td>
<td>4.973</td>
<td>0.028</td>
</tr>
<tr>
<td>Career Development Knowledge and Skills</td>
<td>77.4</td>
<td>4.973</td>
<td>0.028</td>
<td></td>
</tr>
</tbody>
</table>

Based on the findings displayed in Table 3, there were no statistically significant differences between athletes and nonathletes for the eight CAREER DEVELOPMENT INVENTORY variables.

A statistical summary of the differences between the mean scores of athletes and nonathletes on the variables of PARTICIPATION, COMMITMENT, and VALUES, as measured the SALIENCE INVENTORY, is provided in Table 4.
Table 4 - Differences Between the Mean Scores of Athletes and Nonathletes as Measured by the SI. (α = .007)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mean</th>
<th>Mean</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>136.1</td>
<td>135.2</td>
<td>137.1</td>
<td>0.173</td>
<td>0.679</td>
</tr>
<tr>
<td>Commitment</td>
<td>162.1</td>
<td>162.0</td>
<td>163.1</td>
<td>0.058</td>
<td>0.809</td>
</tr>
<tr>
<td>Values/Expect</td>
<td>211.5</td>
<td>210.4</td>
<td>212.8</td>
<td>0.100</td>
<td>0.752</td>
</tr>
</tbody>
</table>

Based on an examination of the results displayed in Table 4, there were no statistically significant differences between group means for athletes and nonathletes on the three SALIENCE INVENTORY variables of PARTICIPATION, COMMITMENT, and VALUES EXPECTATIONS.

A statistical summary of the differences between athletes and nonathletes for the means, F values, and F probabilities for the 21 variables, as measured by the VALUES SCALE, is provided in Table 5.
Table 5 - Comparison of Athletes vs. Nonathletes as Measured by the VS. (Inventory α = .003)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Mean</th>
<th>Mean</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability Utilization</td>
<td>17.1</td>
<td>16.9</td>
<td>17.4</td>
<td>1.069</td>
<td>0.303</td>
</tr>
<tr>
<td>Achievement</td>
<td>17.6</td>
<td>17.5</td>
<td>17.7</td>
<td>0.374</td>
<td>0.542</td>
</tr>
<tr>
<td>Advancement</td>
<td>16.0</td>
<td>16.2</td>
<td>15.9</td>
<td>0.231</td>
<td>0.631</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>15.7</td>
<td>15.7</td>
<td>15.7</td>
<td>0.000</td>
<td>0.989</td>
</tr>
<tr>
<td>Altruism</td>
<td>16.6</td>
<td>16.0</td>
<td>17.3</td>
<td>4.590</td>
<td>0.034</td>
</tr>
<tr>
<td>Authority</td>
<td>14.2</td>
<td>14.6</td>
<td>13.8</td>
<td>2.278</td>
<td>0.134</td>
</tr>
<tr>
<td>Autonomy</td>
<td>14.8</td>
<td>14.6</td>
<td>15.0</td>
<td>0.388</td>
<td>0.534</td>
</tr>
<tr>
<td>Creativity</td>
<td>14.7</td>
<td>14.6</td>
<td>14.8</td>
<td>0.095</td>
<td>0.758</td>
</tr>
<tr>
<td>Cultural Identity</td>
<td>17.3</td>
<td>17.3</td>
<td>17.3</td>
<td>0.004</td>
<td>0.947</td>
</tr>
<tr>
<td>Economic Reward</td>
<td>16.5</td>
<td>16.6</td>
<td>16.3</td>
<td>0.324</td>
<td>0.570</td>
</tr>
<tr>
<td>Economics</td>
<td>15.8</td>
<td>15.9</td>
<td>15.8</td>
<td>0.475</td>
<td>0.828</td>
</tr>
<tr>
<td>* Lifestyle</td>
<td>15.0</td>
<td>16.1</td>
<td>13.9</td>
<td>15.795</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Development</td>
<td>15.7</td>
<td>15.6</td>
<td>15.9</td>
<td>0.229</td>
<td>0.633</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>11.9</td>
<td>12.0</td>
<td>11.8</td>
<td>0.048</td>
<td>0.826</td>
</tr>
<tr>
<td>Physical Prowess</td>
<td>14.9</td>
<td>15.2</td>
<td>14.5</td>
<td>1.685</td>
<td>0.197</td>
</tr>
<tr>
<td>* Prestige</td>
<td>15.0</td>
<td>15.8</td>
<td>14.2</td>
<td>7.007</td>
<td>0.009</td>
</tr>
<tr>
<td>Risk</td>
<td>14.9</td>
<td>14.8</td>
<td>14.9</td>
<td>0.003</td>
<td>0.956</td>
</tr>
<tr>
<td>Security</td>
<td>17.1</td>
<td>16.9</td>
<td>17.3</td>
<td>0.616</td>
<td>0.434</td>
</tr>
<tr>
<td>Social Interactions</td>
<td>15.7</td>
<td>15.4</td>
<td>16.0</td>
<td>1.126</td>
<td>0.291</td>
</tr>
<tr>
<td>Variety</td>
<td>13.9</td>
<td>14.0</td>
<td>13.8</td>
<td>0.083</td>
<td>0.774</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>10.7</td>
<td>10.9</td>
<td>10.8</td>
<td>0.523</td>
<td>0.471</td>
</tr>
</tbody>
</table>

* significant at the p < .003 level

Twenty one variables were measured by the VALUES SCALE. Based on the findings displayed in Table 5, two variables were statistically significant at the .003 level. These two variables were LIFE STYLE and PRESTIGE. LIFE STYLE refers to living according to one’s own ideas and PRESTIGE refers to being admired for one’s knowledge and skills. The statistically significant differences between these two variables indicates a difference between athletes and nonathletes in the areas of LIFE STYLE and PRESTIGE. This result causes the null hypothesis to be rejected, although
interaction effects due to gender could not be isolated as they were not tested under this hypothesis.

Hypothesis 2 stated that there were no significant differences between the interaction of athletic status and gender regarding CAREER PLANNING, CAREER EXPLORATION, and COMBINED ATTITUINAL SCALE, CAREER DECISION-MAKING SKILLS, KNOWLEDGE OF WORLD-OF-WORK INFORMATION, COMBINED KNOWLEDGE SCALE AND CAREER MATURITY, PARTICIPATION, COMMITMENT, VALUES EXPECTATIONS, and VALUES. A statistical summary of the differences between the scores for interactions for gender and athletic status for the variables of CAREER PLANNING, CAREER EXPLORATION, and COMBINED ATTITUINAL SCALE, CAREER DECISION-MAKING SKILLS, KNOWLEDGE OF WORLD-OF-WORK INFORMATION, COMBINED KNOWLEDGE SCALE AND CAREER MATURITY, as measured the CAREER DEVELOPMENT INVENTORY, is provided in Tables 6 through 13.
Table 6 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of CAREER PLANNING as measured by the CDI. (Inventory α .007)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>3659.487</td>
<td>2 * 5.332</td>
<td>0.006</td>
</tr>
<tr>
<td>Gender</td>
<td>651.409</td>
<td>1 1.898</td>
<td>0.171</td>
</tr>
<tr>
<td>Interaction</td>
<td>312.596</td>
<td>1 0.911</td>
<td>0.342</td>
</tr>
<tr>
<td>Explained</td>
<td>3972.080</td>
<td>3 3.858</td>
<td>0.012</td>
</tr>
<tr>
<td>Residual</td>
<td>34314.756</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38286.837</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

* significant p = .006; ** approaching signif. at p = .024

Table 7 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of CAREER EXPLORATION as measured by the CDI. (Inventory α .007)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>1294.140</td>
<td>2 1.407</td>
<td>0.250</td>
</tr>
<tr>
<td>Gender</td>
<td>217.174</td>
<td>1 0.472</td>
<td>0.493</td>
</tr>
<tr>
<td>Interaction</td>
<td>112.713</td>
<td>1 0.245</td>
<td>0.622</td>
</tr>
<tr>
<td>Explained</td>
<td>1406.850</td>
<td>3 1.020</td>
<td>0.387</td>
</tr>
<tr>
<td>Residual</td>
<td>45975.301</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47382.154</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>
Table 8 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of CAREER DECISION-MAKING as measured by the CDI. (Inventory alpha .007)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>1213.223</td>
<td>2</td>
<td>1.232</td>
<td>0.009</td>
</tr>
<tr>
<td>Gender</td>
<td>234.906</td>
<td>1</td>
<td>0.477</td>
<td>0.124</td>
</tr>
<tr>
<td></td>
<td>569.507</td>
<td>1</td>
<td>1.157</td>
<td>0.045</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>211.732</td>
<td>1</td>
<td>0.430</td>
<td>0.233</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>1424.955</td>
<td>3</td>
<td>0.965</td>
<td>0.013</td>
</tr>
<tr>
<td><strong>Residual</strong></td>
<td>49222.584</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>50647.538</td>
<td>103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* significant p = .009; ** approaching significance p = .045

Table 9 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of WORLD-OF-WORK INFORMATION as measured by the CDI. (Inventory alpha .007)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>6649.046</td>
<td>2</td>
<td>*4.986</td>
<td>0.009</td>
</tr>
<tr>
<td>Gender</td>
<td>1602.953</td>
<td>1</td>
<td>2.404</td>
<td>0.124</td>
</tr>
<tr>
<td></td>
<td>2741.027</td>
<td>1</td>
<td>**4.111</td>
<td>0.045</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>958.552</td>
<td>1</td>
<td>1.438</td>
<td>0.233</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>7607.598</td>
<td>3</td>
<td>3.804</td>
<td>0.013</td>
</tr>
<tr>
<td><strong>Residual</strong></td>
<td>66671.162</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>74278.760</td>
<td>103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 10 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of CAREER DEVELOPMENT ATTITUDES as measured by the CDI. (Inventory α .007)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>3135.422</td>
<td>2</td>
<td>4.207</td>
</tr>
<tr>
<td>Gender</td>
<td>2631.080</td>
<td>1</td>
<td>0.023</td>
</tr>
<tr>
<td>Interaction</td>
<td>86.522</td>
<td>1</td>
<td>0.232</td>
</tr>
<tr>
<td>Explained</td>
<td></td>
<td>3</td>
<td>2.882</td>
</tr>
<tr>
<td>Residual</td>
<td>3221.944</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>40482.990</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

* approaching significance at p = .009

Table 11 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of CAREER DEVELOPMENT KNOWLEDGE SKILLS as measured by the CDI. (Inventory α .007)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
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<th>F prob</th>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>6490.382</td>
<td>2</td>
<td>*4.590</td>
</tr>
<tr>
<td>Gender</td>
<td>1408.079</td>
<td>1</td>
<td>1.991</td>
</tr>
<tr>
<td>Interaction</td>
<td>2859.989</td>
<td>1</td>
<td>**4.045</td>
</tr>
<tr>
<td>Explained</td>
<td>893.312</td>
<td>1</td>
<td>1.263</td>
</tr>
<tr>
<td>Residual</td>
<td>7383.694</td>
<td>100</td>
<td>3.481</td>
</tr>
<tr>
<td>Total</td>
<td>78088.885</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

* approaching significance at p = .012; ** approaching significance at p = .047
Table 12 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of CAREER ORIENTATION TOTAL as measured by the CDI. (Inventory α .007)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
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<th>F value</th>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>10387.499</td>
<td>2</td>
<td>*8.081</td>
</tr>
<tr>
<td>Gender</td>
<td>1198.151</td>
<td>2</td>
<td>1.864</td>
</tr>
<tr>
<td>Interaction</td>
<td>6005.867</td>
<td>2</td>
<td>**9.344</td>
</tr>
<tr>
<td>Explained</td>
<td>11062.518</td>
<td>2</td>
<td>5.737</td>
</tr>
<tr>
<td>Residual</td>
<td>64273.329</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>75335.846</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

* significant at $p = .001$;  ** significant at $p = .003$

Table 13 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of KNOWLEDGE OF PREFERRED OCCUPATION as measured by the CDI. (Inventory α .007)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>723.088</td>
<td>2</td>
<td>0.553</td>
</tr>
<tr>
<td>Gender</td>
<td>117.398</td>
<td>1</td>
<td>0.180</td>
</tr>
<tr>
<td>Interaction</td>
<td>368.992</td>
<td>1</td>
<td>0.565</td>
</tr>
<tr>
<td>Explained</td>
<td>115.859</td>
<td>1</td>
<td>0.177</td>
</tr>
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<td>838.947</td>
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</tr>
<tr>
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<td>65360.582</td>
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</tbody>
</table>

Total 66199.529 103
An examination of the results of Tables 6 through 13 indicate that there were no significant interactions for the effects of gender and athletic status. Although an examination of Tables 6, 9, 11, and 12 show that the main effects are significant \((p = .007)\), the F values reveal that it is gender and not athletic status that contributes most to the main effects. This indicates that the interaction of gender and athletic status was nonsignificant.

A statistical summary of the differences between the scores for interactions for gender and athletic status for the variables of PARTICIPATION, COMMITMENT, and VALUES EXPECTATIONS is provided in Tables 14 through 16.

Table 14 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of PARTICIPATION as measured by the SI. (Inventory \(\alpha .03\))

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>F Value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>9.482</td>
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<td>0.017</td>
<td>0.896</td>
</tr>
<tr>
<td>Gender</td>
<td>1213.050</td>
<td>1</td>
<td>2.209</td>
<td>0.140</td>
</tr>
<tr>
<td>Interaction</td>
<td>1041.821</td>
<td>1</td>
<td>1.897</td>
<td>0.172</td>
</tr>
<tr>
<td>Explained</td>
<td>2351.579</td>
<td>3</td>
<td>1.427</td>
<td>0.239</td>
</tr>
<tr>
<td>Residual</td>
<td>54924.536</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>57276.115</td>
<td>103</td>
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<td></td>
</tr>
</tbody>
</table>
Table 15 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of COMMITMENT as measured by the SI. (Inventory α .03)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
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<tr>
<td>Main Effects</td>
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<td></td>
</tr>
<tr>
<td>Group</td>
<td>2308.183</td>
<td>2</td>
<td>2.474</td>
<td>0.089</td>
</tr>
<tr>
<td>Gender</td>
<td>140.968</td>
<td>1</td>
<td>0.302</td>
<td>0.584</td>
</tr>
<tr>
<td>Interaction</td>
<td>2280.034</td>
<td>1</td>
<td>*4.888</td>
<td>0.029</td>
</tr>
<tr>
<td>Explained</td>
<td>188.025</td>
<td>1</td>
<td>0.403</td>
<td>0.527</td>
</tr>
<tr>
<td>Residual</td>
<td>2496.207</td>
<td>3</td>
<td>1.784</td>
<td>0.155</td>
</tr>
<tr>
<td>Total</td>
<td>49137.760</td>
<td>103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* significant at p = .029

Table 16 - Summary of results of 2 (Athletes vs Nonathletes) x 2 (Male vs Female Ss) ANOVAs for the Variable of VALUES EXPECTATIONS as measured by the SI. (Inventory α .03)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>1316.382</td>
<td>2</td>
<td>0.439</td>
<td>0.646</td>
</tr>
<tr>
<td>Gender</td>
<td>0.440</td>
<td>1</td>
<td>0.000</td>
<td>0.986</td>
</tr>
<tr>
<td>Interaction</td>
<td>1168.252</td>
<td>1</td>
<td>0.780</td>
<td>0.379</td>
</tr>
<tr>
<td>Explained</td>
<td>0.024</td>
<td>1</td>
<td>0.000</td>
<td>0.997</td>
</tr>
<tr>
<td>Residual</td>
<td>1316.406</td>
<td>3</td>
<td>0.293</td>
<td>0.830</td>
</tr>
<tr>
<td>Total</td>
<td>149851.353</td>
<td>100</td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>151167.760</td>
<td>103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
An examination of Tables 14, 15, and 16 show no significant interaction findings for the SALIENCE INVENTORY variables of PARTICIPATION, COMMITMENT and VALUES EXPECTATIONS. An examination of Table 15 indicates a significant difference between genders for the variable of COMMITMENT. This is discussed under hypothesis three as it is not related to gender and athletic status interaction.

Tables 17 through 37 display the summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the twenty one variables on the VALUES SCALE.

Table 17 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of ABILITY UTILIZATION as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
<th></th>
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<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>0.028</td>
<td>1</td>
<td>0.004</td>
<td>0.947</td>
</tr>
<tr>
<td>Gender</td>
<td>44.100</td>
<td>1</td>
<td>*7.087</td>
<td>0.009</td>
</tr>
<tr>
<td>Interaction</td>
<td>18.626</td>
<td>1</td>
<td>2.993</td>
<td>0.087</td>
</tr>
<tr>
<td>Explained</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>622.312</td>
<td>100</td>
<td>3.745</td>
<td>0.013</td>
</tr>
<tr>
<td>Total</td>
<td>692.221</td>
<td>103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* approaching significance at p < .009; ** approaching significance at p < .02
Table 18 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of ACHIEVEMENT as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>0.028</td>
<td>1</td>
<td>0.017</td>
</tr>
<tr>
<td>Gender</td>
<td>10.351</td>
<td>1</td>
<td>2.209</td>
</tr>
<tr>
<td>Interaction</td>
<td>7.670</td>
<td>1</td>
<td>1.897</td>
</tr>
<tr>
<td>Explained</td>
<td>19.953</td>
<td>3</td>
<td>1.427</td>
</tr>
<tr>
<td>Residual</td>
<td>509.268</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>529.221</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

Table 19 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of ADVANCEMENT as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>2.812</td>
<td>1</td>
<td>0.302</td>
</tr>
<tr>
<td>Gender</td>
<td>0.768</td>
<td>1</td>
<td>0.083</td>
</tr>
<tr>
<td>Interaction</td>
<td>10.637</td>
<td>1</td>
<td>1.142</td>
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<tr>
<td>Explained</td>
<td>13.542</td>
<td>3</td>
<td>0.485</td>
</tr>
<tr>
<td>Residual</td>
<td>931.217</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>944.760</td>
<td>103</td>
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</tr>
</tbody>
</table>
Table 20 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of AESTHETICS as measured by the VS. (Inventory $\alpha .03$)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Main Effects</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>0.010</td>
<td>1</td>
<td>0.001</td>
</tr>
<tr>
<td>Gender</td>
<td>0.186</td>
<td>1</td>
<td>0.018</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>0.880</td>
<td>1</td>
<td>0.087</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>1.068</td>
<td>3</td>
<td>0.035</td>
</tr>
<tr>
<td><strong>Residual</strong></td>
<td>1011.846</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1012.913</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

Table 21 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of ALTRUISM as measured by the VS. (Inventory $\alpha .03$)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>24.501</td>
<td>1</td>
<td>2.895</td>
</tr>
<tr>
<td>Gender</td>
<td>5.903</td>
<td>1</td>
<td>0.697</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>3.299</td>
<td>1</td>
<td>0.390</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>47.707</td>
<td>3</td>
<td>1.879</td>
</tr>
<tr>
<td><strong>Residual</strong></td>
<td>846.409</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>894.115</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>
Table 22 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of AUTHORITY as measured by the VS. 
(Inventory α .03)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
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<th>F value</th>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>18.370</td>
<td>2</td>
<td>1.146</td>
</tr>
<tr>
<td>Gender</td>
<td>17.023</td>
<td>1</td>
<td>2.123</td>
</tr>
<tr>
<td>Interaction</td>
<td>0.136</td>
<td>1</td>
<td>0.017</td>
</tr>
<tr>
<td>Explained</td>
<td>14.421</td>
<td>1</td>
<td>1.799</td>
</tr>
<tr>
<td>Residual</td>
<td>32.791</td>
<td>3</td>
<td>1.363</td>
</tr>
<tr>
<td>Total</td>
<td>801.671</td>
<td>100</td>
<td>834.462</td>
</tr>
</tbody>
</table>

Table 23 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of AUTONOMY as measured by the VS. 
(Inventory α .03)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>4.583</td>
<td>2</td>
<td>0.270</td>
</tr>
<tr>
<td>Gender</td>
<td>4.418</td>
<td>1</td>
<td>0.520</td>
</tr>
<tr>
<td>Interaction</td>
<td>1.256</td>
<td>1</td>
<td>0.148</td>
</tr>
<tr>
<td>Explained</td>
<td>22.828</td>
<td>1</td>
<td>2.688</td>
</tr>
<tr>
<td>Residual</td>
<td>27.411</td>
<td>3</td>
<td>1.076</td>
</tr>
<tr>
<td>Total</td>
<td>849.349</td>
<td>100</td>
<td>876.760</td>
</tr>
</tbody>
</table>
Table 24 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of CREATIVITY as measured by the VS. (Inventory α .03)

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>2.166</td>
<td>1</td>
<td>2.166</td>
</tr>
<tr>
<td>Gender</td>
<td>2.090</td>
<td>1</td>
<td>2.090</td>
</tr>
<tr>
<td>Interaction</td>
<td>37.293</td>
<td>1</td>
<td>3.423</td>
</tr>
<tr>
<td>Explained</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>1089.550</td>
<td>100</td>
<td>1.237</td>
</tr>
<tr>
<td>Total</td>
<td>1129.990</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

Table 25 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of ECONOMIC REWARDS as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>7.222</td>
<td>1</td>
<td>0.871</td>
</tr>
<tr>
<td>Gender</td>
<td>10.155</td>
<td>1</td>
<td>1.225</td>
</tr>
<tr>
<td>Interaction</td>
<td>37.879</td>
<td>1</td>
<td>4.569</td>
</tr>
<tr>
<td>Explained</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>50.827</td>
<td>3</td>
<td>2.043</td>
</tr>
<tr>
<td>Total</td>
<td>829.135</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>879.962</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

* approaching significance at  p = .035
Table 26 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of ECONOMICS as measured by the VS.  
(Inventory α .03)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
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<th>F value</th>
<th>F prob</th>
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<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>1.970</td>
<td>1</td>
<td>0.345</td>
<td>0.558</td>
</tr>
<tr>
<td>Gender</td>
<td>6.731</td>
<td>1</td>
<td>1.178</td>
<td>0.280</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>8.027</td>
<td>1</td>
<td>1.405</td>
<td>0.239</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>15.030</td>
<td>3</td>
<td>0.877</td>
<td>0.456</td>
</tr>
<tr>
<td><strong>Residual</strong></td>
<td>571.191</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>586.222</td>
<td>103</td>
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<td></td>
</tr>
</tbody>
</table>

Table 27 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of SECURITY as measured by the VS.  
(Inventory α .03)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
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<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>0.660</td>
<td>1</td>
<td>0.129</td>
<td>0.720</td>
</tr>
<tr>
<td>Gender</td>
<td>5.860</td>
<td>1</td>
<td>1.149</td>
<td>0.286</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>8.139</td>
<td>1</td>
<td>1.595</td>
<td>0.210</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>17.169</td>
<td>3</td>
<td>1.122</td>
<td>0.344</td>
</tr>
<tr>
<td><strong>Residual</strong></td>
<td>510.215</td>
<td>100</td>
<td></td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>527.385</td>
<td>103</td>
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<td></td>
</tr>
</tbody>
</table>
Table 28 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of LIFE STYLE as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
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<th>F prob</th>
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</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>129.862</td>
<td>2</td>
<td>**8.202</td>
<td>0.001</td>
</tr>
<tr>
<td>Gender</td>
<td>123.779</td>
<td>1</td>
<td>*15.637</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>27.525</td>
<td>1</td>
<td>3.477</td>
<td>0.065</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>157.387</td>
<td>3</td>
<td>6.627</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>791.603</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>948.990</td>
<td>103</td>
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<td></td>
</tr>
</tbody>
</table>

* significant at $p = .000$; **significant at $p = .001$

Table 29 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of PERSONAL DEVELOPMENT as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
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<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>18.143</td>
<td>2</td>
<td>0.790</td>
<td>0.456</td>
</tr>
<tr>
<td>Gender</td>
<td>0.015</td>
<td>1</td>
<td>0.001</td>
<td>0.971</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>0.076</td>
<td>1</td>
<td>0.007</td>
<td>0.935</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>18.220</td>
<td>3</td>
<td>0.529</td>
<td>0.663</td>
</tr>
<tr>
<td>Residual</td>
<td>1147.771</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1165.990</td>
<td>103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 30 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of PHYSICAL ACTIVITY as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
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<th>F value</th>
<th>F prob</th>
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</thead>
<tbody>
<tr>
<td>Main Effects</td>
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<td></td>
</tr>
<tr>
<td>Group</td>
<td>15.682</td>
<td>2</td>
<td>0.474</td>
</tr>
<tr>
<td>Gender</td>
<td>14.880</td>
<td>1</td>
<td>0.899</td>
</tr>
<tr>
<td>Interaction</td>
<td>31.169</td>
<td>1</td>
<td>1.883</td>
</tr>
<tr>
<td>Explained</td>
<td>46.851</td>
<td>3</td>
<td>0.943</td>
</tr>
<tr>
<td>Residual</td>
<td>1655.678</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1702.529</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

Table 31 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of PHYSICAL PROWESS as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
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<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>39.574</td>
<td>2</td>
<td>2.850</td>
</tr>
<tr>
<td>Gender</td>
<td>27.648</td>
<td>1</td>
<td>3.982</td>
</tr>
<tr>
<td>Interaction</td>
<td>0.012</td>
<td>1</td>
<td>0.002</td>
</tr>
<tr>
<td>Explained</td>
<td>39.586</td>
<td>3</td>
<td>1.901</td>
</tr>
<tr>
<td>Residual</td>
<td>694.250</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>733.837</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>
Table 32 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of PRESTIGE as measured by the VS.
(Inventory $\alpha .03$)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>92.586</td>
<td>1</td>
<td>*10.966</td>
</tr>
<tr>
<td>Gender</td>
<td>42.068</td>
<td>1</td>
<td>4.983</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>8.053</td>
<td>1</td>
<td>0.954</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>111.564</td>
<td>3</td>
<td>4.405</td>
</tr>
<tr>
<td>Residual</td>
<td>844.282</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>955.846</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

* significant at $p = .001$

Table 33 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of RISK as measured by the VS.
(Inventory $\alpha .03$)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>6.907</td>
<td>1</td>
<td>0.756</td>
</tr>
<tr>
<td>Gender</td>
<td>62.467</td>
<td>1</td>
<td>6.838</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>24.062</td>
<td>1</td>
<td>2.634</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>86.558</td>
<td>3</td>
<td>3.158</td>
</tr>
<tr>
<td>Residual</td>
<td>913.557</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1000.115</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>
Table 34 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of SOCIAL INTERACTIONS as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>15.439</td>
<td>2</td>
<td>1.048</td>
<td>0.354</td>
</tr>
<tr>
<td>Gender</td>
<td>3.080</td>
<td>1</td>
<td>0.418</td>
<td>0.519</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>8.268</td>
<td>1</td>
<td>1.123</td>
<td>0.292</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>23.707</td>
<td>3</td>
<td>1.073</td>
<td>0.364</td>
</tr>
<tr>
<td>Residual</td>
<td>736.447</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>760.154</td>
<td>103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 35 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of VARIETY as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>4.162</td>
<td>2</td>
<td>0.175</td>
<td>0.840</td>
</tr>
<tr>
<td>Gender</td>
<td>0.092</td>
<td>1</td>
<td>0.008</td>
<td>0.930</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>27.349</td>
<td>1</td>
<td>2.298</td>
<td>0.133</td>
</tr>
<tr>
<td><strong>Explained</strong></td>
<td>31.515</td>
<td>3</td>
<td>0.883</td>
<td>0.453</td>
</tr>
<tr>
<td>Residual</td>
<td>1189.870</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1221.385</td>
<td>103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 36 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of WORKING CONDITIONS as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>26.582</td>
<td>2</td>
<td>1.215</td>
<td>0.301</td>
</tr>
<tr>
<td>Gender</td>
<td>20.718</td>
<td>1</td>
<td>1.898</td>
<td>0.171</td>
</tr>
<tr>
<td>Interaction</td>
<td>18.992</td>
<td>1</td>
<td>1.739</td>
<td>0.190</td>
</tr>
<tr>
<td>Explained</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>1091.826</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1137.346</td>
<td>103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 37 - Summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the Variable of CULTURAL IDENTITY as measured by the VS. (Inventory α .03)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F value</th>
<th>F prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>55.383</td>
<td>2</td>
<td>**5.706</td>
<td>0.005</td>
</tr>
<tr>
<td>Gender</td>
<td>55.359</td>
<td>1</td>
<td>*11.407</td>
<td>0.001</td>
</tr>
<tr>
<td>Interaction</td>
<td>8.214</td>
<td>1</td>
<td>1.692</td>
<td>0.196</td>
</tr>
<tr>
<td>Explained</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>485.317</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>548.913</td>
<td>103</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* * significant at p = .001; ** p = .005 (approaching significance)
Tables 17 through 37 displayed the summary of results of 2 (Athlete vs Nonathlete) x 2 (Male vs Female Ss) ANOVAs for the twenty-one of the variables on the VALUES SCALE. An examination of the results of Tables 17 through 37 indicate that there were no significant interactions for the effects of gender and athletic status on any of the twenty-one VALUES SCALE variables. As a result of the nonsignificant findings for the CAREER DECISION INVENTORY, the SALIENCE INVENTORY, and the VALUES SCALE, the null hypothesis was retained.

Hypothesis 3 stated that there were no significant differences between male and female students that can be attributed to CAREER PLANNING, CAREER EXPLORATION, and COMBINED ATTITUDBINAL SCALE, CAREER DECISION-MAKING SKILLS, KNOWLEDGE OF WORLD-OF-WORK INFORMATION, COMBINED KNOWLEDGE SCALE AND CAREER MATURITY, PARTICIPATION, COMMITMENT, VALUES EXPECTATIONS, and VALUES. Tables 6 through 12 displayed the results of the ANOVA's between male and female students as well as gender interactions for the eight CAREER DEVELOPMENT INVENTORY variables. Based on the findings displayed on Tables 6 through 13 there were no significant differences between male and female students for the eight CAREER DEVELOPMENT INVENTORY variables.

Tables 14 through 16 displayed the results of the ANOVA's between male and female students as well as gender interactions for the three variables of the SALIENCE
INVENTORY. Based on the findings displayed on Tables 14 and 16 there were no significant differences between male and female students on two of the SALIENCE INVENTORY variables—PARTICIPATION and VALUES EXPECTATIONS. However, there was a significant difference between male and female students on the SALIENCE INVENTORY variable of COMMITMENT at the .03 level of significance.

Tables 17 through 37 displayed the statistical summary of differences between male and female students for the twenty one variable in the VALUES SCALE. Based on the findings displayed on Tables 16 through 36 there were no significant differences between male and female students on twenty of the variable of the VALUES SCALE. As shown in Table 37, CULTURAL IDENTITY was the only variable found to be statistically significantly higher for female students ($p = .001$) than male students. Statistically significant differences between male and female students on the SALIENCE INVENTORY variable of COMMITMENT as well as the VALUES SCALE variable of CULTURAL IDENTITY caused the null hypothesis to be rejected.

Many other variables on the CAREER DEVELOPMENT INVENTORY, the SALIENCE INVENTORY, and the VALUES SCALE approached significance. These are reviewed in the Discussion section of this chapter.

Discussion

The majority of current research suggests that student-
athletes, especially male student-athletes at NCAA Division I institutions, have developmental deficiencies in the areas of career decision-making, role salience and values clarification, when compared to nonathletes. These problems may be the result of a successful self-gratifying association with athletics from the ages of 6 to 18. The athletes' self-image and self worth have been determined, to a large degree, by success in sports. This makes the transition to college from high school difficult, at best, for those who have not accepted the need to prepare for a career after athletics.

Three test instruments, the CAREER DEVELOPMENT INVENTORY, the SALIENCE INVENTORY, and the VALUES SCALE were used to determine whether or not similar developmental deficiencies existed at a small, private, Catholic-affiliated college in South Texas. Significant differences were tested for between athletes and nonathletes in the areas of career development, using the CAREER DEVELOPMENT INVENTORY, role salience, using the SALIENCE INVENTORY, and values, using the VALUES SCALE. The CAREER DEVELOPMENT INVENTORY did not produce any statistically significant results pertaining to the three hypotheses. The SALIENCE INVENTORY produced one statistically significant difference between male and female students on the variable of COMMITMENT. Female students had significantly higher COMMITMENT scores ($M = 165.4$) than male students with a mean
of 155.2. The significant difference in the SALIENCE INVENTORY variable of COMMITMENT tends to indicate that female students are more aware and understanding of their multiple roles as student, worker, active member of the community, in the home with family, and in one’s leisure time than male students.

The VALUES SCALE produced a statistically significant difference between athletes and nonathletes on the variables of LIFE STYLE and PRESTIGE. For the variable of LIFE STYLE, athletes had a statistically significantly higher mean (M = 16.1) than nonathletes (M = 13.9). The significant difference between athletes and nonathletes on the variable of LIFE STYLE implies that athletes place greater importance on living according to their own ideas than nonathletes. For the VALUES SCALE variable of PRESTIGE, athletes had a statistically significantly higher mean (M = 15.8) than nonathletes (M = 14.2). The significant difference tends to indicate athletes place a greater importance on being admired for their athletic skills than do nonathletes.

The VALUES SCALE produced one statistically significant difference between male and female students on the variable of CULTURAL IDENTITY. Female students produced statistically significantly higher CULTURAL IDENTITY scores (M = 17.6) than male students with a mean of 14.8 (p = .001). The significant difference in the variable of CULTURAL MATURITY implies that female students tend to place
greater importance on living where people of their own religion and race are accepted than male students.

The comparison of male and female students yielded a number of variables which approached significance. On the CAREER DEVELOPMENT INVENTORY, female students had higher CAREER PLANNING scores (mean of 114.6) than male students with a mean of 111.2. The CAREER PLANNING scale assesses attitudes and planfulness; hence, female students may be more positive in their attitude toward a post-education career and are working toward that end in career planning. It might indicate that female students have a better grasp of what occupation they expect to be involved in after finishing their education and that female students are more involved in career planning than are male students.

The second area within the CAREER DEVELOPMENT INVENTORY where there was a difference approaching significance between male and female students was in WORLD-OF-WORK INFORMATION scores. The WORLD-OF-WORK INFORMATION scale assesses knowledge of the career development tasks in the early stages and it tests knowledge of occupations ranging from semiskilled to professional. Female students had higher WORLD-OF-WORK INFORMATION scores (mean of 88.5) than male students with a mean of 73.0). The difference between the two means suggests that female students appear to be more knowledgeable about the career choices available to them.
Another area of difference within the CAREER DEVELOPMENT INVENTORY was CAREER DEVELOPMENT ATTITUDE. Female students had significantly higher CAREER DEVELOPMENT ATTITUDE scores (M = 115.2) than male students with a mean of 106.7. The CAREER DEVELOPMENT ATTITUDE is a combination of CAREER PLANNING and CAREER EXPLORATION. CAREER PLANNING examines how much and to what degree careers have been considered. CAREER EXPLORATION scores reveal students' attitudes toward sources of career and occupational information, willingness to use these sources, and evaluation of help received from them. The lower mean score for male students might indicate a need for more systematic attention to the basic principles of career development and the career-related information.

Female students also had significantly higher CAREER DEVELOPMENT KNOWLEDGE and SKILLS scores (M = 87.5) than male students with a mean of 71.9. Female students had significantly higher CAREER ORIENTATION TOTAL scores (M = 102.3) than their male counterparts with a mean of 81.3. These significant findings indicate that female students appear to be more mindful of the importance of career exploration, career planning, and career decision-making than male students. In particular, the significant differences between female and male students in the variable of CAREER ORIENTATION TOTAL appears to indicate that female students are better prepared to make career decision than
male students. Female students tend to more closely approach a measure of career or vocational maturity than male students.

It should be noted that 72.1 percent of the subjects in this study were females. Female athletes comprised 56.6 percent of the athlete sample and 88.2 percent of the female nonathlete sample. As such, variable results may have been skewed due to the inequality of the male to female ratio.

Several VALUES SCALE variables approached significance. Female students had higher ABILITY UTILIZATION scores (mean of 17.6) than male students with a mean of 16.0. This might suggest that female students tend to believe they use all of their skills and knowledge better than their male counterparts.

Female students had higher PHYSICAL PROWESS scores (mean of 15.1) than male students with a mean of 14.3. Physical prowess revolves around one’s perception of how hard they physically work. Female students may believe they work closer to their physical maximum potential than do male students. Female students also had higher RISK scores (mean of 15.3) than male students, with a mean of 13.7, indicating that female students appear to be more willing to take risks or do risky things than male students. It should be noted that these findings differed from the findings of Yates (1985) that men tended to value RISK and PHYSICAL PROWESS more than women.
An important VALUES SCALE variable, in which female students had higher scores (M = 15.3) than male students with a mean of 14.5, was PRESTIGE. This is the same variable in which athletes had statistically significant higher means (M = 15.8) than nonathletes (M = 14.2). These two findings together might tend to indicate that female athletes place a greater importance on being admired for their athletic skills than male athletes and male and female students.

There was one interaction effect between groups of athletic status and gender that approached significance. These interaction occurred for ECONOMIC REWARDS. Male athletes had lower scores (M = 13.7) than both female athletes and all nonathletes, each of which had means above 16.6. This tends to indicate that female athletes and nonathletes place a greater emphasis on having a high standard of living than do male athletes. It can not be can inferred that male athletes place less value on economic rewards since male athletes might assume or take for granted that they will have a higher standard of living than other groups.

Smallman (1993) found that student-athletes at NCAA Division I institutions were significantly less able than nonathletes in their readiness to make career decisions. Smallman concluded that this inability to make career decisions seems to be only one of several potential
developmental deficiencies many student-athletes experience. Hinkle (1977) found that major-sport (e.g., football, basketball) student-athletes needed guidance and assistance in career and life planning while attending college.

Due to the nature of the educational setting of the subjects, this study could not replicate the findings of Smallman (1993) and Hinkle (1977). Their subjects attended major NCAA Division I institutions while Incarnate Word College, the site from which this population was derived, is a smaller institution affiliated with the NAIA. This study did, however, find instances of developmental deficiencies in many of the same areas, especially career planning. Although the differences found were between male and female students and not athletes and nonathletes, status appeared to have impact on the results.

The CAREER PLANNING scale examines the career planning in which one has engaged and the degree of engagement. Athletes had a mean of 105.7, which was lower than the mean of nonathletes (114.2). The F value and F probability figures indicated a large, but not statistically significant difference. This difference may indicate tendencies toward career planning deficiencies, similar to those found by Smallman (1993) and Hinkle (1977).

Another area where the results approached significance between athletes and nonathletes was in the WORLD-OF-WORK INFORMATION. Previously discussed, the WORLD-OF-WORK
INFORMATION scale examines two areas: knowledge of the career development tasks in the early stages and knowledge of occupations ranging from semiskilled to professional. The mean for athletes was 78.2 and the mean for nonathletes was 90.5 (Table 8). The difference may indicate that athletes are not as knowledgeable of the WORLD-OF-WORK INFORMATION as nonathletes, which would include knowledge of how people get jobs. It might also tend to indicate a difference in strength between the two groups in the areas of planfulness, exploratory attitudes, decision making and information.

The third area where the difference approached significance between athletes and nonathletes was CAREER DEVELOPMENT KNOWLEDGE and SKILLS. This area correlates the previous mentioned two areas—CAREER PLANNING and WORLD-OF-WORK INFORMATION. It examines how career decisions are made with knowledge of the world of work, including its mores and occupations. Again, the nonathletes scored higher (89.2) than the athletes (77.4). This might indicate that nonathletes are better prepared in areas dealing with the knowledge of skills backgrounds necessary to make career decisions.

The last area within the CAREER DEVELOPMENT INVENTORY where the scores indicated a trend toward significance differences between nonathletes and athletes was CAREER ORIENTATION TOTAL. This scale combines the results of
CAREER PLANNING, CAREER EXPLORATION, CAREER DECISION-MAKING, and WORLD-OF-WORK INFORMATION. It approaches a measure of career maturity, but only uses four of the five measures of adolescent vocational maturity. The difference between the athlete's mean (90.1) and the nonathlete's mean (103.1) might indicate nonathletes are more vocationally mature and aware than are athletes. Nonathletes may have a better grasp in the areas of career planning, career exploration, career decision making, and world of work than do athletes.

As previously mentioned, the Bonferroni Correction Method was used in this research paper to minimize Type I errors. It should be noted that there is a great deal of discussion within the literature as to whether or not the Bonferroni should be applied to attitudinal research. If the Bonferroni has not been used in this research paper the conclusions would have differed.

Summary of Major Findings

The null hypotheses stated that there were no significant differences between the population means of groups of athletes and nonathletes, male and female students, and athletic status versus gender interactions. The F statistic probabilities were evaluated for both athletic status and gender main effects and, their interaction effects.

1. There were no significant differences found between the scores of groups of athletes and nonathletes on the
variables measured by the CAREER DEVELOPMENT INVENTORY. There were no significant differences between athletes and nonathletes on the variables measured by the SALIENCE INVENTORY. There were significant differences found between athletes and nonathletes on the VALUES SCALE variables of LIFE STYLE and PRESTIGE.

2. There were no significant interaction effects for gender and athletic status for the variables measured by the CAREER DEVELOPMENT INVENTORY, the SALIENCE INVENTORY, and the VALUES SCALE.

3. There were no significant differences between male and female students for the variables measured by the CAREER DEVELOPMENT INVENTORY. There was one significant difference between male and female students for the SALIENCE INVENTORY variable of COMMITMENT. There was one significant difference between male and female students on VALUES SCALE variable of CULTURAL IDENTITY.

Summary

Chapter III presented the results of the various ANOVAs between athletes and nonathletes as well as between male and female students. Hypotheses one through three were answered utilizing a comparison of scores between athletes and nonathletes, male and female students, and male athletes and female athletes on the CAREER DEVELOPMENT INVENTORY, the SALIENCE INVENTORY, and the VALUES SCALE. Chapter V will present a summary of the major findings, conclusions, and recommendations for future study.
CHAPTER V

SUMMARY OF THE MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS FOR FUTURE STUDY

Introduction

This study was concerned with potential developmental deficiencies inherent in college-level student-athletes in the areas of career decision-making, role salience, and values. Three instruments were used to measure differences between athletes and nonathletes. The instruments were the CAREER DEVELOPMENT INVENTORY, the VALUES SCALE, and the SALIENCE INVENTORY.

The primary purpose was to determine if student-athletes at a small, private, Catholic-affiliated college differ from nonathletes at the same institution in the areas of career decision-making, role salience, and values.

Summary of Major Findings

The null hypotheses stated that there were no significant differences between the population means of groups of athletes and nonathletes and male and female students. The F statistic probabilities were evaluated for both athletic status and gender main effects and, their interaction effects.
1. There were no significant differences found between the scores of groups of athletes and nonathletes on the variables measured by the CAREER DEVELOPMENT INVENTORY. There were no significant differences between athletes and nonathletes on the variables measured by the SALIENCE INVENTORY. There were significant differences between athletes and nonathletes on the variables of LIFE STYLE and PRESTIGE, as measured by the VALUES SCALE.

2. There were no significant interaction effects for gender and athletic status for the variables measured by the CAREER DEVELOPMENT INVENTORY, the SALIENCE INVENTORY, and the VALUES SCALE.

3. There were no significant differences between male and female students for the variables measured by the CAREER DEVELOPMENT INVENTORY. There was one significant difference between male and female students for the SALIENCE INVENTORY variable of COMMITMENT. There was one significant difference between male and female students on VALUES SCALE variable of CULTURAL IDENTITY.

Conclusions

The data in this study tends to justify the following conclusions for a small, private college population:

1. Athletes and nonathletes at small, private institutions tend to be similar in the areas of career decision-making and planning and role salience. However, based on the statistically significant results that athletes
projected higher LIFE STYLE scores than nonathletes, it can be implied that athletes prefer to live according to their own ideas. In addition, since athletes had statistically significant higher scores than nonathletes in the value of PRESTIGE, it can also be implied that athletes value being admired for their knowledge, or more likely skills, than nonathletes. These two variables would seem to tie together in significance. It is a logical assumption that one who desires to live according to their own ideas, as opposed to someone who would prefer to live according to the dictates of others, would also have aspirations to seek to be admired for their knowledge, or in the case of an athlete, skills. These results suggested that athletes' desires to satisfy needs for prestige (i.e., to be admired) and lifestyle (i.e., to live a comfortable and self-expressive life) are important counseling and career planning issues for this group.

2. There appears to be no relationship between gender and athletic status for all variables associated with career development and role salience. However, based on the statistically significant results of gender interaction and athletic status that athletes projected higher LIFE STYLE scores than nonathletes, it can be implied that athletes prefer to live according to their own ideas. In addition, since athletes had statistically significant higher scores than nonathletes in the value of PRESTIGE, it can also be
implied that athletes value being admired for their knowledge, or more likely skills, than nonathletes. These two variables would seem to tie together in significance. It is a logical assumption that one who desires to live according to their own ideas, as opposed to someone who would prefer to live according to the dictates of others, would also have aspirations to seek to be admired for their knowledge, or in the case of an athlete, skills. These results suggested that athletes' desires to satisfy needs for prestige (i.e., to be admired) and lifestyle (i.e., to live a comfortable and self-expressive life) are important counseling and career planning issues for this group. There are significant differences between gender and athletic status for the variables of LIFE STYLE and PRESTIGE.

3. There appears to be no relationship between male and female students for all variables associated with career development and role salience. However, based on statistically significant results that female students projected higher CULTURAL IDENTITY scores than male students, it can be implied that female students place greater value on living where people of their own religion and race are accepted than male students.

Recommendations for Future Research

The following recommendations are provided to assist other researchers interested in developing studies using the groups of athletes versus nonathletes and male versus female
students in the areas of career decision-making, salience and values.

First, the greatest obstacle to the implementation of this study was the time involved in administering the inventories. Future research should endeavor to limit the study to the Career Development Inventory or focus on the Values Scale and Salience Inventory. Special consideration should be given to attempting to administer the inventories to all subjects at the same time and in the same location.

Future research efforts at institutions similar to Incarnate Word College might consider utilizing only student-athletes while comparing individual sports for significant differences or utilizing additional athletes for multiple comparisons. Also, since there appeared to be so many gender differences which approached significance between male students and female students in the Values Scale, future research might focus solely in this area.

Future research at Incarnate Word College might examine the tendencies revealed in this study using specific sports groups such as men's basketball or women's tennis. Examining and comparing inventory results by sport would more clearly identify deficiencies which are sports-specific at Incarnate Word College.

As previously noted, 72.1 percent of the subjects in this study were females. Female athletes comprised 56.6 percent of the athlete sample and 88.2 percent of the female nonathlete sample. As such, variable results may have been
skewed due to the inequality of the male to female ratio. Future research may attempt to more evenly distribute the subjects by gender.

The sample breakdown by academic classification favored the freshmen with 36.5 percent overall. Future research may attempt to distribute academic classification more evenly.

Finally, replication of this study at other institutions similar, as well as different from Incarnate Word College, may add additional significant information regarding the difference and similarities between athletes and nonathletes. Although the student athlete population at small institutions appears to be similar to that of the nonathlete population, evidence in the areas of career decision making and values suggest that their developmental processes may be in need of attention.
I N C A R N A T E  W O R D  C O L L E G E

DEMOGRAPHIC INFORMATION

Please complete the following general demographic information. Check the appropriate line.

1. IWC ID Number: ______________ MAJOR: ______________

2. Age range:
   __ 16-18  __ 19-21  __ 22-24  __ 25+

3. Gender:  __ Female  __ Male

4. Race/Ethnicity:  __ American  __ Native  __ Asian
   __ Black  __ Hispanic
   __ White  __ Other

5. Classification:  __ Freshman
   __ Sophomore
   __ Junior
   __ Senior
   __ Graduate

6. Do you live on campus?  __ Yes  __ no

7. Are you employed?  __ Yes (continue)
   __ No (skip to #10)

8. If yes,  __ on campus? or  __ off campus

9. Approximately how many hour per week do you work?
   __ 0-10  __ 10-20  __ 20-30  __ 30-40  __ 40+

10. If you are currently on or have played on an IWC athletic team, what sport(s) did you play at IWC?
    __ not applicable
    __ Baseball  __ Basketball  __ Golf
    __ Cross Country  __ Soccer  __ Softball
    __ Volleyball  __ Cheerleading  __ Tennis

NOTE: This research project is designed to help determine how you make career decision. Your responses will be kept strictly confidential and the results of the research will be made available.
APPENDIX B

LETTER TO SUBJECTS
Dear (FIRST NAME):

Please take minute to read this letter. I am asking for your help in a very important project. As part of my doctoral dissertation at the University of North Texas I need you to participate in a research survey.

The purpose of the research survey is to determine if there are differences between athletes and non athletes (at Incarnate Word College) in the areas of career decision making, role salience, and values. You will be asked to complete three questionnaires during two noon hours during this Spring semester.

Understanding potential differences between student-athletes and non athletes is very important. Through your participation, I hope to learn how to best provide meaningful educational programs to IWC's student athletes if there are differences in the areas examined in this study.

I guarantee that your choice to participate and your responses, if you do participate, will not be identified with you personally. You will not be identified in any way except to be placed in the student-athlete or non athlete group for statistical comparisons.

You will be contacted by phone shortly. I hope you will be able to participate.

Cordially,

Howard Patterson
Director of Athletics
APPENDIX C

INFORMED CONSENT FORM
USE OF HUMAN SUBJECTS

INFORMED CONSENT

NAME OF SUBJECT: __________________________

1. I hereby give consent to Howard Patterson to perform or supervise the following investigational procedures:

   a. Administration of Career Decision Inventory
   b. Administration of Salience Inventory.
   c. Administration of Values Scale.

   I have (seen, heard) a clear explanation and understand the nature and procedure and the attended risks involved. I have (seen, heard) a clear explanation and understand the benefits to be expected. I understand that the procedure is investigational and that I may withdraw my consent at any time without prejudice or penalty. With my understanding of this, having received this information and satisfactory answers to the questions I have asked, I voluntarily consent to the procedure designated in Paragraph 1 above.

   ____________________________
   DATE

   SIGNED: ____________________________ SIGNED: ____________________________
   WITNESS SUBJECT OR
   SIGNED: ____________________________ SIGNED: ____________________________
   WITNESS PERSON RESPONSIBLE
APPENDIX D

CAREER DEVELOPMENT INVENTORY
College and University Form

CAREER DECISION INVENTORY

Developed by Drs. Donald E. Super, Albert S. Thompson, Richard H. Lindeman, Jean P. Jordaan, and Roger A. Myers at Teachers College, Columbia University

Career Development Inventory

Directions

The Career Development Inventory asks you about college, work your future career, and some of the plans you may have made. Answers to questions like these can indicate what kind of help may be useful to you in planning and preparing for a job after graduation, or for graduate or professional school training before pursuing your occupational career.

The Inventory consists of two parts. The person who administers it will indicate whether you should complete the first part, the second part, or both parts. Part 1 (Career Orientation) begins on the next page and Part II (Knowledge of Preferred Occupation) begins on page 11.

All your answers to the CDI go on a special answer sheet that should accompany this booklet. Make no marks of any kind on this booklet. Record your answers by blackening the appropriate lettered boxes on the answer sheet, using a #2 lead pencil. Do not use a pen. If you change an answer, please erase thoroughly.

Before opening the test booklet, fill in your name and the other information requested on the upper third of the answer sheet, following any special instructions of the person administering the inventory. Fill in the name boxes carefully.

When directed to do so, open this booklet and begin. Please answer every question. If you are not sure about an answer, guess; the first answer that comes to you is often the best one. Work rapidly, but be careful to make in the right boxes for each question.

Consulting Psychologists Press, Inc., Palo Alto, CA
A. CAREER PLANNING

How much thinking and planning have you done in the following areas? For each question below choose the answer that best tells what you have done so far.

1. Finding out about educational and occupational possibilities by going to the library, sending away for information, or talking to somebody who knows.

   A. I have not yet given an thought to this.
   B. I have given some thought to this, but haven’t made any plans yet.
   C. I have some plans, but am still not sure of them.
   D. I have made definite plans, but don’t know yet how to carry them out.
   E. I have made definite plans, and know what to do to carry them out.

2. Talking about career plans with an adult who knows something about me.

   A. I have not yet given an thought to this.
   B. I have given some thought to this, but haven’t made any plans yet.
   C. I have some plans, but am still not sure of them.
   D. I have made definite plans, but don’t know yet how to carry them out.
   E. I have made definite plans, and know what to do to carry them out.

3. Taking classes that will help me decide what line of work to go into when I leave college or university.

   A. I have not yet given an thought to this.
   B. I have given some thought to this, but haven’t made any plans yet.
   C. I have some plans, but am still not sure of them.
   D. I have made definite plans, but don’t know yet how to carry them out.
   E. I have made definite plans, and know what to do to carry them out.

4. Taking courses that will help me later in college, in professional or graduate school, in job training, or on the job.

   A. I have not yet given an thought to this.
   B. I have given some thought to this, but haven’t made any plans yet.
C. I have some plans, but am still not sure of them.
D. I have made definite plans, but don't know yet how to carry them out.
E. I have made definite plans, and know what to do to carry them out.

5. Taking part in college or community activities that will help me in college, graduate or professional school, in training, or on the job.

A. I have not yet given an thought to this.
B. I have given some thought to this, but haven't made any plans yet.
C. I have some plans, but am still not sure of them.
D. I have made definite plans, but don't know yet how to carry them out.
E. I have made definite plans, and know what to do to carry them out.

6. Taking part in college or community activities (for example, science club, college newspaper, volunteer nurse's aid) that will help me decide what kind of work to go into when I leave college.

A. I have not yet given an thought to this.
B. I have given some thought to this, but haven't made any plans yet.
C. I have some plans, but am still not sure of them.
D. I have made definite plans, but don't know yet how to carry them out.
E. I have made definite plans, and know what to do to carry them out.

7. Getting a part-time or summer job that will help me decide what kind of work I might go into.

A. I have not yet given an thought to this.
B. I have given some thought to this, but haven't made any plans yet.
C. I have some plans, but am still not sure of them.
D. I have made definite plans, but don't know yet how to carry them out.
E. I have made definite plans, and know what to do to carry them out.

8. Working out problems that might make it hard for me to get the kind of training or the kind of work I would like.

A. I have not yet given an thought to this.
B. I have given some thought to this, but haven't made any plans yet.
C. I have some plans, but am still not sure of them.
D. I have made definite plans, but don't know yet how to carry them out.
E. I have made definite plans, and know what to do to carry them out.

9. Getting the kind of training, education, or experience I will need to get the kind of work I would like.

A. I have not yet given an thought to this.
B. I have given some thought to this, but haven't made any plans yet.
C. I have some plans, but am still not sure of them.
D. I have made definite plans, but don't know yet how to carry them out.
E. I have made definite plans, and know what to do to carry them out.

10. Getting a job once I have finished my education and training.

A. I have not yet given an thought to this.
B. I have given some thought to this, but haven't made any plans yet.
C. I have some plans, but am still not sure of them.
D. I have made definite plans, but don't know yet how to carry them out.
E. I have made definite plans, and know what to do to carry them out.

11. Doing things that will help me be a good worker, one who is most likely to be sure of a job.

A. I have not yet given an thought to this.
B. I have given some thought to this, but haven't made any plans yet.
C. I have some plans, but am still not sure of them.
D. I have made definite plans, but don't know yet how to carry them out.
E. I have made definite plans, and know what to do to carry them out.

The next questions concern the kind of work you would like to do when you complete your education. Keeping in mind the type of job you think you might like to be in after you finish your schooling, choose the one best answer that tells the amount of knowledge you already have about these jobs.

12. What people really do on the job.

A. Hardly any knowledge.
B. A little knowledge.
C. An average amount of knowledge.
D. A good deal of knowledge.
E. A great deal of knowledge.

13. The abilities needed for the occupation.
   A. Hardly any knowledge.
   B. A little knowledge.
   C. An average amount of knowledge.
   D. A good deal of knowledge.
   E. A great deal of knowledge.

14. The working conditions on such jobs.
   A. Hardly any knowledge.
   B. A little knowledge.
   C. An average amount of knowledge.
   D. A good deal of knowledge.
   E. A great deal of knowledge.

15. The education or training needed to get such a job.
   A. Hardly any knowledge.
   B. A little knowledge.
   C. An average amount of knowledge.
   D. A good deal of knowledge.
   E. A great deal of knowledge.

16. The courses offered that are best for that kind of occupation.
   A. Hardly any knowledge.
   B. A little knowledge.
   C. An average amount of knowledge.
   D. A good deal of knowledge.
   E. A great deal of knowledge.

17. The need for people on that kind of job in the future.
   A. Hardly any knowledge.
   B. A little knowledge.
   C. An average amount of knowledge.
   D. A good deal of knowledge.
   E. A great deal of knowledge.

18. Different ways of getting into that occupation.
   A. Hardly any knowledge.
   B. A little knowledge.
   C. An average amount of knowledge.
   D. A good deal of knowledge.
   E. A great deal of knowledge.

19. The chances of advancing in that kind of job or
A. Hardly any knowledge.
B. A little knowledge.
C. An average amount of knowledge.
D. A good deal of knowledge.
E. A great deal of knowledge.

20. What sort of working day and work week I might have in that occupation.
A. Hardly any knowledge.
B. A little knowledge.
C. An average amount of knowledge.
D. A good deal of knowledge.
E. A great deal of knowledge.

B. CAREER EXPLORATION

Questions 21 through 30 have four possible answers. Choose the one best answer for each question to show whether or not you would go to the following sources for information or help in making your plans for work or further education.

A. Definitely not.
B. Probably not.
C. Probably.
D. Definitely.

22. Dormitory or residence hall counselors.
A. Definitely not.
B. Probably not.
C. Probably.
D. Definitely.

23. Professors or faculty advisors.
A. Definitely not.
B. Probably not.
C. Probably.
D. Definitely.

24. Counselors in the college counseling center or placement office.
A. Definitely not.
B. Probably not.
C. Probably.
D. Definitely.
25. Private consultants, employment counselors, and other knowledgeable and helpful adults.
   A. Definitely not.
   B. Probably not.
   C. Probably.
   D. Definitely.

   A. Definitely not.
   B. Probably not.
   C. Probably.
   D. Definitely.

27. Audio or visual aids like cassettes, films or computers.
   A. Definitely not.
   B. Probably not.
   C. Probably.
   D. Definitely.

28. College or graduate and professional school catalogs.
   A. Definitely not.
   B. Probably not.
   C. Probably.
   D. Definitely.

29. People in the occupation or graduate or professional school I am considering.
   A. Definitely not.
   B. Probably not.
   C. Probably.
   D. Definitely.

30. TV shows, movies, or magazines.
   A. Definitely not.
   B. Probably not.
   C. Probably.
   D. Definitely.

Questions 31 through 40 also have four possible answers.
This time choose the one best answer to show how much useful information the people or sources listed below have already given you or directed you to in making your plans for the future.

31. Friends.
A. No useful information.
B. Some useful information.
C. A good deal of useful information.
D. A great deal of useful information.

32. Dormitory or residence hall counselors.
A. No useful information.
B. Some useful information.
C. A good deal of useful information.
D. A great deal of useful information.

33. Professors or faculty advisors.
A. No useful information.
B. Some useful information.
C. A good deal of useful information.
D. A great deal of useful information.

34. Counselors in the college counseling center or placement office.
A. No useful information.
B. Some useful information.
C. A good deal of useful information.
D. A great deal of useful information.

35. Private consultants, employment counselors, and other knowledgeable and helpful adults.
A. No useful information.
B. Some useful information.
C. A good deal of useful information.
D. A great deal of useful information.

36. Books with information I need.
A. No useful information.
B. Some useful information.
C. A good deal of useful information.
D. A great deal of useful information.

37. Audio or visual aids like cassettes, films or computers.
A. No useful information.
B. Some useful information.
C. A good deal of useful information.
D. A great deal of useful information.

38. College or graduate and professional school catalogs.
A. No useful information.
B. Some useful information.
C. A good deal of useful information.
D. A great deal of useful information.

39. People in the occupation or at the graduate or professional school I am considering.
A. No useful information.
B. Some useful information.
C. A good deal of useful information.
D. A great deal of useful information.

40. TV shows, movies, or magazines.
A. No useful information.
B. Some useful information.
C. A good deal of useful information.
D. A great deal of useful information.

C. DECISION-MAKING
What should each of the following students do? Choose the one best answer for each case.

41. E.R. took some tests that suggest some promise for accounting work. This student says, "I just can't see myself sitting behind a desk for the rest of my life. I'm the kind of person who likes variety. I think a traveling job would suit me fine." E.R. should:
A. disregard the tests and do what he or she wants to do.
B. do what the tests say since they know best.
C. look for a job that requires accounting ability but does not pin one to a desk.
D. ask to be tested with another test since the results of the first one are probably wrong.

42. J.D. might like to become a computer programmer, but knows little about computer programming, and is going to the library to find out more about it. The most important thing for J.D. to know now is:
A. what the work is, what one does on the job.
B. what the pay is.
C. what the hours of work are.
D. where one can get the right training.

43. A.M. is very good with skilled handiwork and there isn't anybody in the class who has more mechanical aptitude or is better at art. A.M.'s best grades are math, but A.M. likes all of these things. What should A.M. do?
A. Look for an occupation that will use as many of these interests and abilities as possible.
B. Pick an occupation that uses math, since there is a better future in that than in art or in working with one’s hands.
C. Decide now on one of these activities because of ability or interest, and then pick an occupation that uses that kind of asset.
D. Put off deciding about the future and wait until interest in some of these activities declines.

44. L.F. seems not to care what kind of work is available on leaving college as long as it is working with people. If this is what this student cares about, he or she is likely to make a bad choice because:

A. this kind of work usually requires a postgraduate degree.
B. employers usually hire people with definite interests and objectives.
C. people look down on those who work with people because such work usually doesn’t pay as well as technical work.
D. occupations in which one works with people can be very different from each other in the abilities and interests that are needed.

45. R.A. had good grades in high school, he wants to go to college, and his parents approve of his going to college, but he has no occupational plans. What is the best next step for R.A.?

A. Delay college until occupational plans emerge.
B. Choose a college major that is very difficult.
C. Choose a college where exploring several majors is encouraged during the first two years.
D. Find out about graduate and professional school requirements.

46. A.K. can’t decide whether to become an air-conditioning and refrigeration technician or an engineer. In making the choice, to which of the following would A.K. pay the most attention?

A. How much money A.K. wants to earn?
B. How much education and training A.K. is likely to be able to get.
C. What A.K.’s parents would prefer.
D. Which occupation people respect most.

47. E.B. has excellent grades and very highs scores on all ability tests, but has not educational or vocational plans. What is the best advice to give to E.B.?
A. Arrive at a definite goal as soon as possible.
B. Not to be concerned about a goal or a plan because success is almost certain.
C. Concentrate on selecting the right college major.
D. Find out when important choices will have to be made and get the needed information.

48. An uncle has just told T.H. that his company is always looking for actuaries, pays them well, and keeps them on the payroll even in bad times. T.H. is interested and wants to learn more about the occupation. What is the most important thing for T.H. to learn?
A. Where else actuaries work.
B. How much training is required.
C. What is the work actuaries do.
D. What actuaries really are paid.

49. L.M. has good school grades and looks forward to majoring in physics and going on to graduate school. What is the best advice for L.M. about first-year courses?
A. Be sure to schedule the best math and physical science courses.
B. Get all the lab courses possible.
C. Take a light load to get good grades.
D. Allow time for a part-time job to learn what physicists do.

50. M.J. is considering becoming either a research chemist or a lawyer. In choosing between the two, which of the following should be given the most weight?
A. Whether M.J.'s ability in science and grades in science courses are good enough.
B. Whether M.J. can afford to go to graduate school.
C. Whether M.J. can get admitted to graduate school.
D. Whether M.J.'s friends think the choice is a good one.

51. After careful though, E.K. has decided on graduate work in business after a college major in economics. However, choosing between majors in accounting and in marketing remains a problem for E.K. In exploring this problem, what should be given most weight?
A. The difference in training time required by the two majors.
B. The chances of being admitted for training in the major.
C. Which major requires more work.
D. Which major best fits E.K.'s abilities and
52. J.F. is the best all-around artist in the class, winning art competitions consistently. But academic subject matter comes hard to J.F., who will probably graduate in the bottom fifth of the senior class. Which is the most realistic educational plan for J.F.?

53. L.D. wants to be a newspaper reporter. Which of the following paths might lead to becoming a qualified newspaper reporter?

A. Working full-time on a newspaper and continuing education on a part-time bases.
B. Earning a bachelor’s degree in Journalism.
C. Taking a liberal arts degree first, followed by a graduate degree in Journalism.
D. Any of the above.

54. B.D.’s interest in and skill at helping others have become the most important part of B.D. self-picture. Which occupation should B.D. probably not be considering?

A. Nurse’s aide.
B. Recreation worker.
C. Salesperson.
D. Teacher’s aide.

55. R.R. gets B’s in math and science but is failing first-year college English and getting a D in a history course. Which occupation makes the most sense for R.R.?

A. Engineering technician.
B. Veterinarian.
C. Civil engineer.
D. Science and math teacher.

56. R.J. has high ability, excellent grades, and the money to go to college. R.J.’s only clear future goal is to make a great deal of money. What should R.J. do?

A. Pursue a career in medicine because that’s where the money is.
B. Arrive at an appropriate vocational goal and the money will take care itself.
C. Change goals because wanting a lot of money is not a good thing.
D. Find out what wanting to make a lot of money really means.
57. A.S. has good aptitude test scores but made poor grades in high school. The school counselor had advised A.S. not to go to college because of the chance of failure. A.S. thinks that is not a problem, wants to go ahead with college, and has been admitted to a non-selective college. What should A.D. do?

A. Forget about college and seek a satisfying job.
B. Repeat basic courses in order to make a good start.
C. Take a regular course if the program is not too demanding.
D. Get private tutoring in the weak subjects.

58. A French professor thinks C.G. has exceptional talent in French and encourages C.G. to think about majoring in it not only in college but also in graduate school. What is the best first step to take?

A. Find out what advanced and postgraduate courses French majors take.
B. Talk to a counselor about what kind of information is needed and how to get it.
C. Find out about graduate school requirements for studying French.
D. Investigate the demand for French teachers.

59. If the goal someone has set is realistic and reasonable, the most important thing is:

A. to stick to it no matter what happens.
B. not to be influenced by what other people think of the choice.
C. to have good plans for achieving it.
D. to forget about all other possibilities.

60. The reason why a person should try out different courses and activities is that:

A. it looks good on transcripts and in letters of reference.
B. it helps in the discovery of interests and abilities and strengths and weaknesses.
C. it helps in getting more respect from friends.
D. it is more satisfying to be active than idle.

D. WORLD-OF-WORK INFORMATION

Choose the one best answer to each of the following questions about career development and the world of work.
61. When professors or counselors encourage students to explore themselves and the world about them, what they want them to do is to

A. be active in college affairs.
B. go on field trips.
C. try themselves out in a variety of situations and activities.
D. take some aptitude tests.

62. Exploring interests, abilities, and opportunities is something that people should be encouraged to engage in

A. throughout their lives.
B. when they become dissatisfied with the way things are.
C. when they lose their jobs.
D. when things start to go wrong.

63. As we go from childhood to adolescence, from adolescence to adulthood, and from adulthood to middle age and old age, the most important thing is that

A. people expect more of us.
B. we have new decisions and choices to make.
C. the competition gets tougher.
D. our lives get easier.

64. By age 25 most young men and women who work have stopped changing jobs and are ready to "settle down". This is because

A. they have learned that they lose more than they gain by changing jobs.
B. they realize that changing jobs only gives them a bad reputation.
C. they now have a better picture of what they and the world of work are like.
D. most employers won't hire people who have moved around a lot.

65. Which of the following changes of college major is the easiest to make? From

A. Business Administration to Biology.
B. Physics to Business Administration.
C. History to Physics.
D. Engineering to Business Administration.

66. The most important thing about the courses you take at the college or jobs you take after you leave college is
A. what the courses or jobs tell you about your interests and abilities.
B. whether the courses or jobs are easy or difficult.
C. whether your parents approve of the choice of courses or jobs.
D. what your instructors or employers think of you.

67. What is the best advice one can give high school and college students with regard to their future plans?

A. Evaluate and revise those plans in the light of experience.
B. Stick to them no matter what.
C. If at first you don’t succeed, try, try again.
D. Get to know key people; contacts are more important than grades or employer’s ratings.

68. A student who, on leaving college, takes a construction job at a good wage instead of an executive training job at lower pay

A. gives up a better future for a better present.
B. should work up to a more skilled job easily enough.
C. is probably following the counselor’s advice.
D. don’t know what else to do.

69. People who continue to work after they retire usually do so because they

A. have to in order to get Social Security.
B. like the work and the activity.
C. are needed by their employers.
D. don’t know what else to do.

70. Which one of the following occupations belongs to an occupational family or field of work that is different from that of the other three?

A. Anthropologist
B. Sociologist
C. Paleontologist
D. Demographer

71. Family doctors (physicians) usually learn their jobs in

A. high schools.
B. community colleges or technical schools.
C. four-year colleges or universities.
D. graduate or professional schools.

72. Lawyers usually learn their jobs in
A. on-the-job training.
B. community colleges.
C. four-year colleges or universities.
D. graduate or professional schools.

73. Investment counselors usually learn their jobs in
A. on-the-job training.
B. community colleges.
C. four-year colleges or universities.
D. graduate or professional schools.

74. Medical laboratory technicians are most likely to use
A. levels.
B. log tables.
C. tongue depressors.
D. microscopes.

75. In starting a new job, it is most important to
A. make sure the other workers like you.
B. show that you are your own boss.
C. be aware of how others feel about things.
D. hide your own feelings from others.

76. In dealing with customers, clients, or other outsiders with whom your work brings you in contact, it is most important to
A. show them you know more about your work than they do.
B. understand what they want and see if you can help them get it.
C. make sure that you do only as you are told.
D. do whatever brings in the most money.

77. Which of the following is most important in a job interview?
A. Telling the interviewer you will do any work so long as the job is a good one.
B. Knowing what salary or pay to ask for.
C. Finding out whether you and the job are right for each other.
D. Being introduced by a mutual friend.

78. Which of the following workers is most likely to be able to forget about work after leaving the office?
A. Credit manager.
B. District sales manager.
C. College professor.
D. Cardiologist.

79. Equal employment opportunity legislation is now making more opportunities for
A. women.
B. skilled laborers.
C. high school graduates.
D. college graduates.

80. Recent trends in employment make it clear that from now on
A. almost all married women will work after marriage.
B. more than half of the married women will work after marriage.
C. almost half of the married women will work.
D. few married women will work.

PART II. Knowledge of Preferred Occupation

One of the kinds of information required in career planning is knowledge of the occupational world, particularly of the occupations considered as possible career goals.

This section is designed to help you determine how much you know about the occupational area you are currently moving toward in your career planning, even though you may not have definitely decided on a specific occupation.

INSTRUCTIONS

First, turn to the back of your answer sheet to the Occupational Group Preference Form and follow the instructions there. Use the form to select one of the Occupational Groups (A to T).

Next, fill in the information requested on the answer sheet if you have not already done so. Follow the instructions of the person administering the inventory. Be sure to mark your chosen Occupational Group (A to T) on the back of the answer sheet. Make all the marks for the following questions in the lower third of the answer sheet labeled "Part II," using a #2 lead pencil only.

All your answers to the remaining questions should be in terms of the Occupational Group you selected when filling out the Preference Form on the back of your answer sheet. Please answer every question. If you are not sure about an
Characteristics of Preferred Occupation: These five questions below deal with the kind of work involved. They should be answered in terms of the Occupational Group you selected when filling in the Occupational Group Preference Form. Be sure that you have marked the letter of your Preferred Occupational Group on the answer sheet.

Duties: Most occupations involve some combination of working with words, numbers, people, and things. In your Preferred Occupational Group the:

1. most important is:
   A. words.  B. numbers.  C. people.  D. things

2. next most important is:
   A. words.  B. numbers.  C. people.  D. things

3. least important is:
   A. words.  B. numbers.  C. people.  D. things

4. Tools and Equipment: The Occupational Group you selected requires the use of
   A. no special tools or equipment.
   B. hand-tools, without real precision.
   C. hand-tools, with real precision.
   D. equipment, with simple handling or adjustments.
   E. complex equipment requiring technical knowledge and skill.

5. Physical Requirements: In this Occupational Group the work is generally:
   A. sedentary; done sitting down and lifting only light objects.
   B. light; one may stand or walk but does not have to lift heavy objects.
   C. moderately heavy; things to be lifted never weigh more than 50 pounds and usually less than 25.
   D. heavy; with much standing, walking, and lifting objects weighing up to 100 pounds in loading or moving equipment.

Ability Requirements: Occupations differ in the abilities required to learn and do the work. Following is a list of these abilities. Think of how people differ in these abilities and rate your Occupational Group to show how much of each of the abilities is typical of workers in the Occupational Group.
6. Verbal ability (understanding and working with words). On this ability, this Occupational Group is typically made up of

A. The bottom 10% of people in general.
B. below average people.
C. average, middle third of people in general.
D. above average people.
E. the top 10% of people in general.

7. Non-verbal reasoning (ability to find relationships among objects, patterns, and designs). On this ability, this Occupational Group is typically made up of

A. The bottom 10% of people in general.
B. below average people.
C. average, middle third of people in general.
D. above average people.
E. the top 10% of people in general.

8. Numerical ability (working with numbers and using them in solving problems). On this ability, this Occupational Group is typically made up of

A. The bottom 10% of people in general.
B. below average people.
C. average, middle third of people in general.
D. above average people.
E. the top 10% of people in general.

9. Clerical ability (ability to check combinations of letters and numbers quickly and accurately). On this ability, this Occupational Group is typically made up of

A. The bottom 10% of people in general.
B. below average people.
C. average, middle third of people in general.
D. above average people.
E. the top 10% of people in general.

10. Mechanical ability (ability to understand mechanical principles and equipment and to apply the laws of everyday science). On this ability, this Occupational Group is typically made up of

A. The bottom 10% of people in general.
B. below average people.
C. average, middle third of people in general.
D. above average people.
E. the top 10% of people in general.
11. Spatial ability (ability to see objects in relation to each other, to judge sizes and shapes, and to think in three dimensions). On this ability, this Occupational Group is typically made up of

A. The bottom 10% of people in general.
B. below average people.
C. average, middle third of people in general.
D. above average people.
E. the top 10% of people in general.

12. Motor coordination (ability to move body accurately, quickly, and smoothly). On this ability, this Occupational Group is typically made up of

A. The bottom 10% of people in general.
B. below average people.
C. average, middle third of people in general.
D. above average people.
E. the top 10% of people in general.

13. English skills (knowledge of use of correct grammar, punctuation, and capitalization). On this ability, this Occupational Group is typically made up of

A. The bottom 10% of people in general.
B. below average people.
C. average, middle third of people in general.
D. above average people.
E. the top 10% of people in general.

14. Reading ability. On this Occupational Group, workers must be able to

A. read and remember complex passages involving special vocabularies.
B. understand the meanings of words in general literary use.
C. read ordinary newspapers and carry on conversations.
D. understand simple instructions and answer simple questions.

Interests: Consider the interests involved in your Preferred Occupational Group.

15. Here are 9 types of interests that people may have. Choose the one that is most typical of the occupations in the group you selected. Mark the corresponding letter on the answer sheet for Question 15.

A. Verbal - working with words, stories, ideas
B. Numerical  -working with numbers, arithmetic, calculators, etc.
C. Clerical  -detail work calling for accuracy and neatness with words or figures
D. Mechanical  -working with things, machines, equipment
E. Scientific  -experimenting, laboratory research, understanding the how and why of things
F. Artistic/Musical  -enjoying design, color, shape or enjoying listening to or playing music
G. Promotional  -influencing others personally or in writing
H. Social  -helping people who are in need or in trouble
I. Outdoor  -activities involving being outdoors

16. Now choose the one from the above list (A to I) that is second most typical of the occupations in your Occupational Group Preference. Record that letter in the box on the answer sheet for Question 16.

**Values:** Occupations differ in the extent to which they permit workers in the occupation to find what they want in life. In the following 14 questions, indicate how well the Occupational Group you picked provides opportunities for satisfying the values listed.

**Values**  **Opportunities for satisfying**

17. Achievement (feeling you have really accomplished something):
   A. Poor  B. Average  C. Good

18. Altruistic (helping people):
   A. Poor  B. Average  C. Good

19. Artistic (enjoying beauty):
   A. Poor  B. Average  C. Good

20. Companionship (having pleasant people to work with):
   A. Poor  B. Average  C. Good

21. Creative (making new things or creating new ideas):
   A. Poor  B. Average  C. Good

22. Economic (making plenty of money and having good things):
   A. Poor  B. Average  C. Good
23. Independence (being free to do things your way):
   A. Poor  B. Average  C. Good

24. Intellectual (working with ideas and solving problems):
   A. Poor  B. Average  C. Good

25. Managing (planning work and supervising people):
   A. Poor  B. Average  C. Good

26. Prestige (having the respect of others):
   A. Poor  B. Average  C. Good

27. Security (being sure of a job):
   A. Poor  B. Average  C. Good

28. Variety (changing activities or location):
   A. Poor  B. Average  C. Good

29. Way-of-life (living a good life in a nice place):
   A. Poor  B. Average  C. Good

30. Working Conditions (having a good place to work in):
   A. Poor  B. Average  C. Good

Other Characteristics:

31. Select the response below that shows the amount of education required by your Preferred Occupational Group:
   A. Postgraduate degree (M.A. or Ph.D.) from a graduate school.
   B. Professional degree (M.D., LLB., etc.) from a professional school.
   C. B.A. or B.S. from a college or university.
   D. A.A. or certificate from a two-year college.
   E. Diploma from a business or technical school after high school.
   F. High school diploma.
   G. None of the above.

32. In your Preferred Occupational Group one needs
   A. no specialized training.
   B. special courses (for instance, commercial or vocational) in high school.
   C. an apprenticeship or more than a few days of on-the-job training.
   D. one or more short courses in business or technical school.
   E. a particular major in college.
   F. a postgraduate or professional degree in a special
33. The best single way to get one's first job in this Occupational Group is through
A. direct application to the employer.
B. an examination that puts one on the eligible list.
C. the union.
D. one's school, or college, or professional school.
E. an employment agency.

34. Occupations vary in their social and economic levels, that is, in how well the people working in them can live. How does the Occupational Group you have in mind compare with others in this way? It is
A. among the lowest.
B. below average.
C. about average in how people can live.
D. above average.
E. among the highest level occupations.

35. The work in some occupational fields is likely to change considerably as a result of future developments in technology and science. The Occupational Group you are rating is likely to
A. require quite different knowledge and skills.
B. change somewhat.
C. stay pretty much the same.

36. How steady is the work in this Occupational Group?
A. Even in bad times, workers are usually sure of a job and a regular income
B. Except in bad times, workers are usually sure of a job and a regular income
C. There is some risk of brief periods of unemployment.
D. Employment is affected by economic changes and the risk of unemployment is great.

37. How steady is the income from this kind of work?
A. Income goes up and down with worker performance, as in piece-work, or commission, or fee-charging jobs.
B. Income varies from week to week with overtime pay or temporary lay-offs.
C. Income is steady, based on a fixed salary.

38. Annual income differs from one occupation to another. How well does this Occupational Group pay? It is
A. one of the lowest paying fields.
B. below average.
C. about average in how well it pays.
D. above average.
E. one of the highest paying fields.

39. Most people in this Occupational Group work for
A. government agencies: federal, state, municipal, etc.
B. private companies, organizations, or institutions.
C. both governmental and private organizations.
D. themselves.

40. The hours of work in these occupations are generally
A. regular, daytime hours fixed by the organization.
B. shift work, involving no change of shift.
C. shift work, involving changing shifts at times.
D. irregular, changing from day to day or week to week, as the situation demands.
E. irregular, but under the control of the individual
F. fixed, but under the control of the individual.
APPENDIX E
VALUES SCALE
THE VALUES SCALE

Developed by Drs. Donald E. Super and Dorothy D. Nevill
University of Florida

This inventory of values asks how important to you are the various values or satisfactions that most people seek in their lives. People differ in what is important to them, but to some extent most people want the same things. The question is, to what degree are they important to you? Please answer all the questions as well as you can. Do not skip any. Your answers will be helpful in understanding people better and in helping them.

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3803 E. Bayshore Road
Palo Alto, CA 94303

DIRECTIONS

Please do not make any marks in this booklet--use the answer sheet as defined.

Fill out all the information on the front of the answer sheet. The information for filling out section 10B is on the back of the booklet. Once you have completed the personal information on the front of the answer sheet, turn the answer sheet over and start answering the questions below. Please answer every question. Work rapidly. If you are not sure, guess--your first thought is most likely to be the right answer for you.

1 means little or no importance
2 means some importance
3 means important
4 means very important

Use a pencil to fill in the circle of the number on the response sheet that shows how important the value is to you. For example;

Have lots of fun   1 2 3 4

Now please respond to all questions, using the answer sheet. It is now or will in the future be important for me to...
1. use all my skills and knowledge.
2. have results which show that I have done well.
3. get ahead.
4. make life more beautiful.
5. help people with problems.
6. tell others what to do.
7. act on my own.
8. discover, develop, or design new things.
9. have a high standard of living.
10. live according to my own ideas.
11. develop as a person.
12. get a lot of exercise.
13. be admired for my knowledge and skills.
14. do risky things.
15. do things with other people.
16. be with friends.
17. have every day be different in some way from the one before it.
18. have good space and light in which to work.
19. live where people of my religion and race are accepted.
20. work hard physically.
21. be where employment is regular and secure.
22. do work that takes advantage of my abilities.
23. know that my efforts will show.
24. get ahead quickly in my career.
25. find pleasure in the beauty of my work.
26. be involved in work in which the goal is helping people
27. be able to be a leader at work.
28. make my own decisions at work.
29. create something new in my work.
30. have a good income.
31. live my life my way.
32. have ideas about what to do with my life.
33. take part in sports and other physical activities.
34. be recognized for my accomplishments
35. feel that there is some risk or danger in the work I do
36. work in a group rather than by myself.
37. do things with people I like.
38. do a number of different things during the say.
39. have good sanitary facilities (e.g. washroom) at work.
40. work where people of my ethnic origin have good job possibilities.
41. use powerful machines.
42. have a regular income.
43. develop my abilities.
44. reach a high standard in my work.
45. be able to get promotions.
46. be concerned with beauty in my work.
47. work in a way that makes the world a better place.
48. be the one who manages the things at work.
49. be free to get on with a job in my own way.
50. have a chance to try out new ideas at work.
51. be well paid for whatever work I might do.
52. work at what I want to when I want to.
53. find personal satisfaction in my work.
54. be physically active in my work.
55. be held in high esteem because of my work.
56. take on dangerous tasks if they interest in.
57. be with other people while I work.
58. be with my kind of people.
59. change work activities frequently.
60. be protected from the weather while I work.
61. feel accepted at work as a member of my race or ethnic group.
62. use my strength.
63. have a secure position.
64. keep on learning new things at work.
65. do something at which I am really good.
66. be able to think in terms of advancement.
67. be able to add to the beauty of the world.
69. make decisions that others follow.
70. be my own boss.
71. use new ideas and methods.
72. earn enough to live well.
73. decide what to do with my life.
74. cultivate my inner life.
75. make a real physical effort at work.
76. be viewed as a special person.
77. face the challenges of danger.
78. have people take time to chat.
80. move around while doing things at work.
81. work in a place where I can really do my job.
82. work with people of my own background.
83. move big boxes and crates.
84. have a feeling of economic security.
85. have to think about what I am doing at work.
86. get the feeling I have really achieved something at work.
87. work where getting ahead is considered important.
88. be appreciated for the beauty of my work.
89. do work which improved things for other people.
90. have the authority to get things done.
91. set my own working hours.
92. be inventive in my job.
93. have all the nice things in life.
94. plan my own work activities.
95. develop my own work life.
96. be able to be outdoors a great deal.
97. have people recognize the work I have done.
98. be able to run reasonable risks when there is something to gain.
99. deal with a variety of people at work.
100. work where there are friendly people.
101. be able to do my work in a variety of ways.
102. have a comfortable temperature at work.
103. be true to the values of my people.
104. carry heavy loads.
105. know that I can always make a living.
106. feel that I am treated fairly at work.

**OCCUPATIONAL GROUP**

The answer sheet ask you, "What kind of work do or did you do?" Select your occupational group from the table below. The table contains occupational group titles and examples of occupations in each group. Select the group that matches the work you do or have done. Each group is identified by a letter; mark the letter on the answer sheet of the group you have selected.

A. Physical Science: Research
   Chemist, Geologist, Mathematician, Physicist, Statistician

B. Physical Science: Applied
   Architect, Engineer (all types), Geographer, Industrial Engineer, Systems Analysts

C. Biological and Medical Science
   Dentist, Medical Doctor, Pharmacist, Scientific Farmer, Veterinarian

D. Social Science: Research
   Anthropologist, Economist, Market Research Analyst, Social Psychologist, Sociologist

E. Social Science: Teaching/Social Service
   Guidance Counselor, Marriage Counselor, School Psychologist, School Teacher, Social Worker

F. Writing and Law
   Editor, Lawyer, Librarian, Reporter, Script Writer

G. Art and Music
   Art Director, Commercial Artist, Dress Designer, Interior Decorator, Musician

H. Public Performance
   Actor/Actress, Announcer (Radio/TV), Dancer, Musical Entertainer, Profession Athlete

I. Business: Finance
   Auditor, Bursar/Controller, Computer Analyst, Cost Accountant, Credit Analyst

J. Business: Management
   Supt.Bldgs/Grounds, Bank Manager, Hotel manager, Personnel Manager, Store Owner/Manager
K. Business: Sales/Promotions
Advertising Manager, Broker/Acct. Executive, Buyer, Public Rel. Manager, Sales Manager

L. Business: Office/Clerical
Bank Teller, Bookkeeper, Clerk/Typist, Postal Clerk, Stenographer

M. Business: Merchandising
Car Rental Clerk, Dept. Store Salesperson, Life Insurance Agent, Real Estate Agent, Retail Salesperson

N. Technical: Physical Science
Air Traffic Control, Electronic Technician, Photoengraver, Surveyor, Weather Analyst

O. Technical: Health Service
Dental Hygienist, Dietician, Nurse (Registered), Occupational Therapist, Optician

P. Technical: Crafts
Auto Mechanic, Dress Maker, Electrician, Jeweler, Printer

Q. Technical: Outdoor
Dairy Farmer, Fish/Game Warden, Flower Grower, Grain Farmer, Landscape Gardener

R. Technical: Mechanical
Appliance Repair, Bulldozer Operator, Bus Driver, Dry Cleaner, Sewing Machine Operator

S. Personal Service
Beautician, Hospital Attendant, Host/Hostess, Receptionist, Waiter/Waitress

T. Manual/Physical
Gas Station Attendant, Parking Lot Attendant, Porter, Radio Assembler, Stevedore
APPENDIX F

SALIENCE INVENTORY
THE SALIENCE INVENTORY

Developed by Drs. Donald E. Super and Dorothy D. Nevill
University of Florida

This inventory of activities, attitudes, and values asks about the meaning and importance to you of the various kinds of activities in which you engage. It is concerned particularly with what you do or might do as a student, worker, or active member of your community, in your home and family, and in your leisure or free time. Please answer all the questions as well as you can; do not skip any. Your answers will be helpful in understanding people better and in helping them.

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Palo Alto, CA 94303

DIRECTIONS

Please do not make any marks in this booklet—use the answer sheet as defined.

Fill out all the information on the front of the answer sheet. The information for filling out section 7B is on the back of the booklet. Once you have completed the personal information on the front of the answer sheet, turn the answer sheet over and start answering the questions below.

In the Salience Inventory you are asked to tell about some of the thing you do in each of the kinds of activities to which you give some time, and then to show how you feel about doing them. You may need to consider time in some questions, and amount or quantity in others. Please read each statement carefully. Then use the following scale to show how true that statement is of you in each of the five activities:

1 means Never or Rarely, and Little or None
2 means Sometimes and Some
3 means Often and Quite a Lot
4 means Almost Always or Always and a Great Deal

The five key words used in this inventory are defined and listed below:

Studying: taking courses, going to school
(day or night classes, lectures, or
laboratory work); preparing for class, studying in a library or at home; also independent studying, formally or informally.

Working: for pay or for profit, on the job or for yourself.

Community Service: activities with community organizations such as recreational groups, Scouts, Red Cross, social service agencies, neighborhood associations, political parties, and trade unions.

Home and Family: taking care of your room, apartment, or house; fixing or cleaning up after meals; shopping; caring for dependents such as children or aging parents.

Leisure Activities: taking part in sports; watching television; pursuing hobbies; going to movies, theater, or concerts; reading; relaxing or loafing; being with your family and friends.

This is the way one person who spends a good deal of time Studying and little time or not time Working filled out the first line on the answer sheet.

A. I have spent time or do spend time in ...

<table>
<thead>
<tr>
<th>STUDYING</th>
<th>WORKING</th>
<th>COMMUNITY SERVICE</th>
<th>HOME AND FAMILY</th>
<th>LEISURE ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>

Notice that this person filled in the "4" circle in column 1 (STUDYING), showing that he spends a great deal of time in this kind of activity. He or she filled in the "1" circle in the column 2 (WORKING), showing that he or she spends little or not time in this kind of activity. He or she filled in other circles for columns 3, 4, and 5, showing how he or she spends time in other kinds of activities. Now use this scale of 1, 2, 3, or 4 to show what you do, and how much you do it, in each of the five types of activities, for each question A through J.

Please answer every question. Work rapidly. If you are not sure, guess—your first thoughts is most likely to be the right answer for you.
PARTICIPATION

(What you actually do or have done recently)

A. I have spent or do spend time in ...
   1. studying          4. home or family
   2. working           5. leisure activities
   3. community service

B. I have talked or do talk to people about ...
   6. studying          9. home or family
   7. working           10. leisure activities
   8. community service

C. I have spent or do spend time reading ...
   11. studying         14. home or family
    12. working         15. leisure activities
    13. community service

D. I have taken or do take advantage of opportunities in ...
   16. studying         19. home or family
   17. working          20. leisure activities
   18. community service

E. I have been or am active in an organization that has to do with ...
   21. studying         24. home or family
   22. working          25. leisure activities
   23. community service

F. I have improved my performance in ...
   26. studying         29. home or family
   27. working          30. leisure activities
   28. community service

G. I am active in ...
   31. studying         34. home or family
   32. working          35. leisure activities
   33. community service

H. I have accomplished something in ...
   36. studying         39. home or family
   37. working          40. leisure activities
   38. community service

I. As often as I can, I take part in ...
   41. studying         44. home or family
   42. working          45. leisure activities
   43. community service

J. I have some books and magazines on ...
46. studying  49. home or family
47. working  50. leisure activities
48. community service

COMMITMENT
(How do you feel about it)

A. It is or will be important to me to be good in ...
51. studying  54. home or family
52. working  55. leisure activities
53. community service

B. I am or expect to be very much involved in ...
56. studying  59. home or family
57. working  60. leisure activities
58. community service

C. I would like to be active for many years in ...
61. studying  64. home or family
62. working  65. leisure activities
63. community service

D. I would like to be active for many years in ...
66. studying  69. home or family
67. working  70. leisure activities
68. community service

E. I am really committed to being active in ...
71. studying  74. home or family
72. working  75. leisure activities
73. community service

F. I am or will be proud to do well in ...
76. studying  79. home or family
77. working  80. leisure activities
78. community service

G. I really feel personally involved in ...
81. studying  84. home or family
82. working  85. leisure activities
83. community service

H. I admire people who are good at ...
86. studying  89. home or family
87. working  90. leisure activities
88. community service

I. I find it fulfilling to take part in ...
91. studying  94. home or family
92. working  95. leisure activities
93. community service
J. I would like to have plenty of time for...

96. studying  
97. working  
98. community service

VALUE EXPECTATIONS
(What opportunity do you see now or in the future to...)

A. use all of your skills and knowledge in ...
   101. studying  
   102. working  
   103. community service

B. know that your efforts will show in ...
   106. studying  
   107. working  
   108. community service

C. make life more beautiful by ...
   111. studying  
   112. working  
   113. community service

D. help people with problems in ...
   116. studying  
   117. working  
   118. community service

E. act on your own in ...
   121. studying  
   122. working  
   123. community service

F. discover or make new things in ...
   126. studying  
   127. working  
   128. community service

G. have high standard of living through ...
   131. studying  
   132. working  
   133. community service

H. live your life your own way in ...
   136. studying  
   137. working  
   138. community service

I. be physically active in ...
   141. studying  
   142. working  
   143. home or family
143. community service

J. be admired for your knowledge and skills in ...
146. studying  149. home or family
147. working  150. leisure activities
148. community service

K. feel that you can take some risks in ...
151. studying  154. home or family
152. working  155. leisure activities
153. community service

L. do things with other people in ...
156. studying  159. home or family
157. working  160. leisure activities
158. community service

M. do a number of different things in ...
161. studying  164. home or family
162. working  165. leisure activities
163. community

N. have good conditions for ...
166. studying  169. home or family
167. working  170. leisure activities
168. community service

OCCUPATIONAL GROUP

The answer sheet ask you, "What kind of work do or did you do?" Select your occupational group from the table below. The table contains occupational group titles and examples of occupations in each group. Select the group that matches the work you do or have done. Each group is identified by a letter; mark the letter on the answer sheet of the group you have selected.

A. Physical Science: Research
Chemist, Geologist, Mathematician, Physicist, Statistician

B. Physical Science: Applied
Architect, Engineer (all types), Geographer, Industrial Engineer, Systems Analysts

C. Biological and Medical Science
Dentist, Medical Doctor, Pharmacist, Scientific Farmer, Veterinarian

D. Social Science: Research
Anthropologist, Economist, Market Research Analyst, Social Psychologist, Sociologist
E. Social Science: Teaching/Social Service
Guidance Counselor, Marriage Counselor, School Psychologist, School Teacher, Social Worker

F. Writing and Law
Editor, Lawyer, Librarian, Reporter, Script Writer

G. Art and Music
Art Director, Commercial Artist, Dress Designer, Interior Decorator, Musician

H. Public Performance
Actor/Actress, Announcer (Radio/TV), Dancer, Musical Entertainer, Profession Athlete

I. Business: Finance
Auditor, Bursar/Controller, Computer Analyst, Cost Accountant, Credit Analyst

J. Business: Management
Supt. Bldgs/Grounds, Bank Manager, Hotel manager, Personnel Manager, Store Owner/Manager

K. Business: Sales/Promotions
Advertising Manager, Broker/Acct. Executive, Buyer, Public Rel. Manager, Sales Manager

L. Business: Office/Clerical
Bank Teller, Bookkeeper, Clerk/Typist, Postal Clerk, Stenographer

M. Business: Merchandising
Car Rental Clerk, Dept. Store Salesperson, Life Insurance Agent, Real Estate Agent, Retail Salesperson

N. Technical: Physical Science
Air Traffic Control, Electronic Technician, Photoengraver, Surveyor, Weather Analyst

O. Technical: Health Service
Dental Hygienist, Dietician, Nurse (Registered), Occupational Therapist, Optician

P. Technical: Crafts
Auto Mechanic, Dress Maker, Electrician, Jeweler, Printer

Q. Technical: Outdoor
Dairy Farmer, Fish/Game Warden, Flower Grower, Grain Farmer, Landscape Gardener

R. Technical: Mechanical
Appliance Repair, Bulldozer Operator, Bus Driver, Dry
Cleaner, Sewing Machine Operator

S. Personal Service
Beautician, Hospital Attendant, Host/Hostess,
Receptionist, Waiter.Waitress

T. Manual/Physical
Gas Station Attendant, Parking Lot Attendant, Porter,
Radio Assembler, Stevedore
BIBLIOGRAPHY


